Holden

APOLLO

OWNER'S HANDBOOK

JM SERIES

Vehicle Identification Certificate

Owner's Name ....

Address ....

Town ....

State ....Postcode ....

Model Name ....

Reg. No. ....Eng. No. ....

Odometer Reading ....

Date of Purchase ....

Vehicle Identification Number ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

Selling Dealer's Stamp & Signature ....

Change of address/ownership

It may be necessary for General Motors-Holden's Automotive Limited (hereinafter Holden's) to contact the owners of Holden vehicles from time to time. To enable this contact, records are maintained of owner's names and addresses.

So we can keep these records up to date, please complete and return by mail one of the forms at the rear of this handbook, if

a) you change your address

b) you have purchased this car from a previous owner.

Part No. 01999-9B114
April 1994

Foreword

Welcome to the growing group of value-conscious people who drive Holdens. We are proud of the advanced engineering and quality construction of each vehicle we build.

Please read this Owner's Handbook carefully. It contains information vital to your safety and for the effective and efficient operation of your Holden vehicle. It will acquaint you with the features of your new Holden and help you enjoy many kilometres of motoring pleasure in safety.

When it comes to service, remember that your Holden dealer knows your vehicle best and is interested in your complete satisfaction. He will provide you with quality maintenance. You should ask him about any assistance you may require.

Please leave this Owner's Handbook in this vehicle at the time of resale. The next owner will also need this information.

All information and specifications in this handbook are current at the time of printing. However, because of Holden's policy of continual product improvement, we reserve the right to make changes at any time without notice.

Please note that this handbook applies to all models and explains all equipment, including options . Therefore, you may find some explanations for equipment not installed on your vehicle.

GENERAL MOTORS - HOLDEN'S AUTOMOTIVE LIMITED A.C.N. 006 893 232

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Accessories, spare parts and modification of your Holden

Please be aware that any modification to your Holden could affect its performance, safety, durability or warranty, and may even violate government regulations.

Installation of a mobile two-way radio system

As the installation of a mobile two-way radio system in your vehicle could affect electronic systems such as electronic fuel injection system, be sure to check with your Holden dealer for precautionary measures or special instructions regarding installation.

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Safety and vehicle damage warnings

In this manual, you will see CAUTION and NOTICE warnings. These are used in the following ways:

CAUTION:

This is a warning against something which may cause injury to people if the warning is ignored. You are informed what you must, or must not do, in order to avoid or reduce the risk to yourself and other people.

NOTICE:

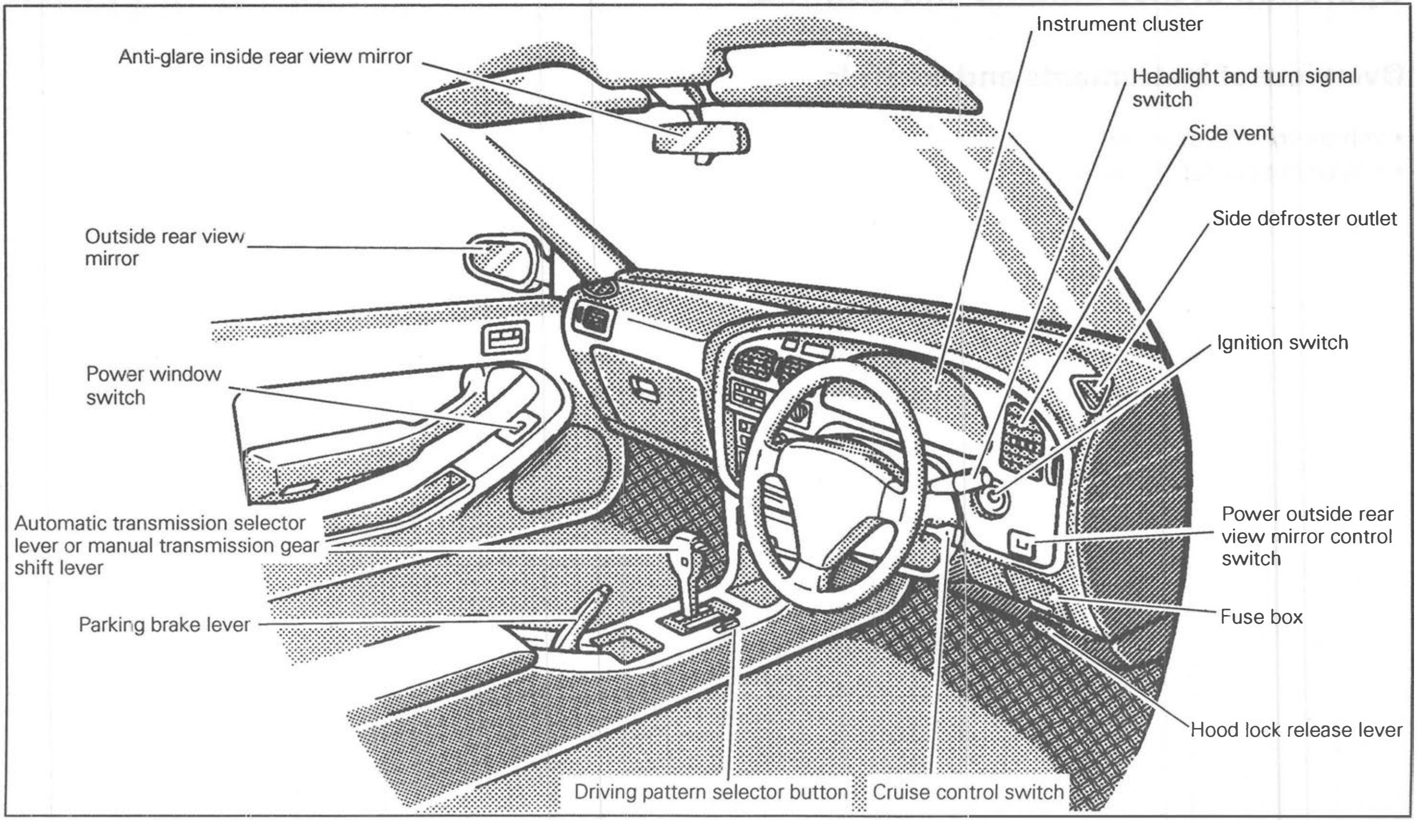
This is a warning against something which may cause damage to the vehicle or its equipment. You are informed what you must, or must not do, in order to avoid or reduce the risk of damage to your vehicle and its equipment.

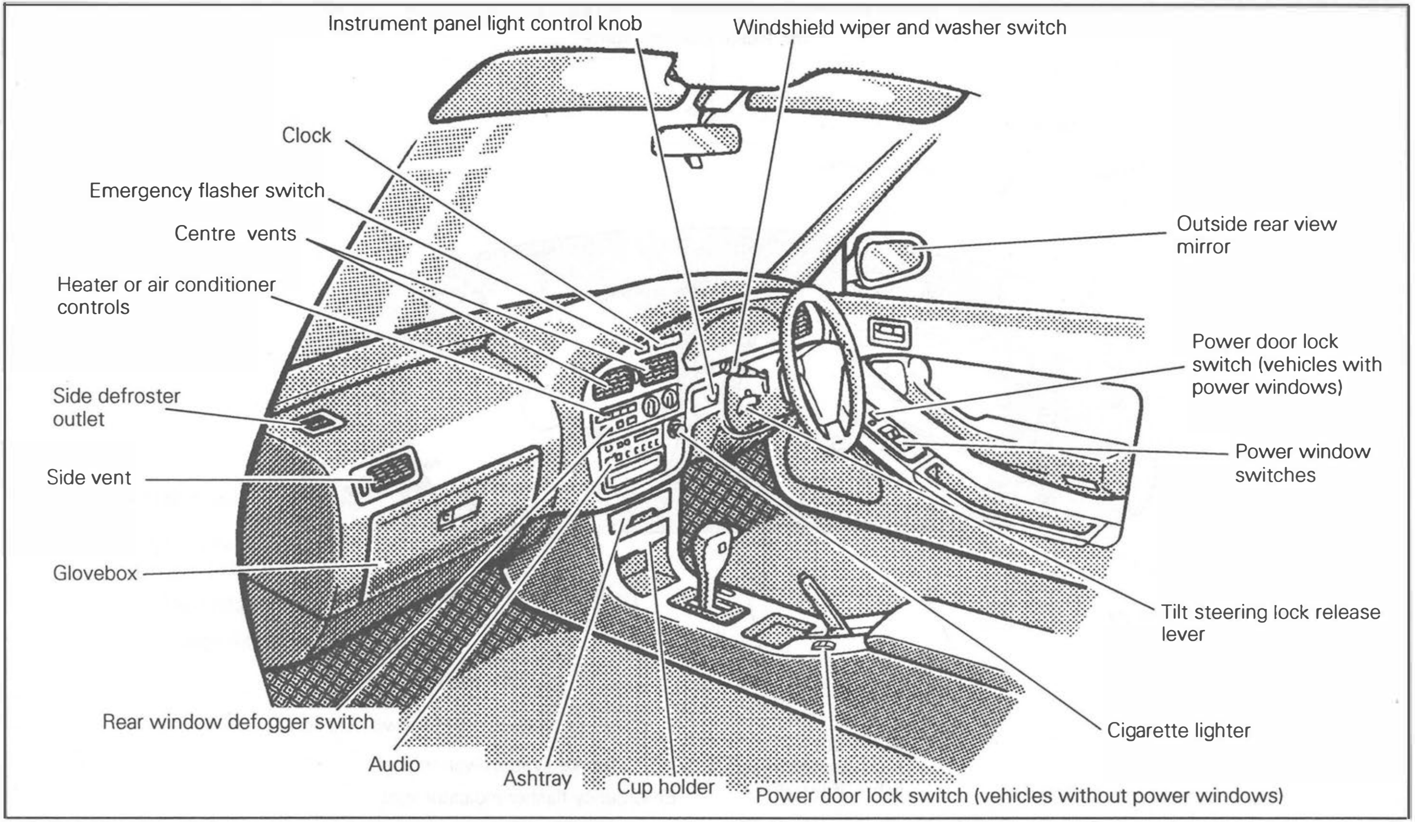
Operation of Instruments and Controls

Overview of instruments and controls

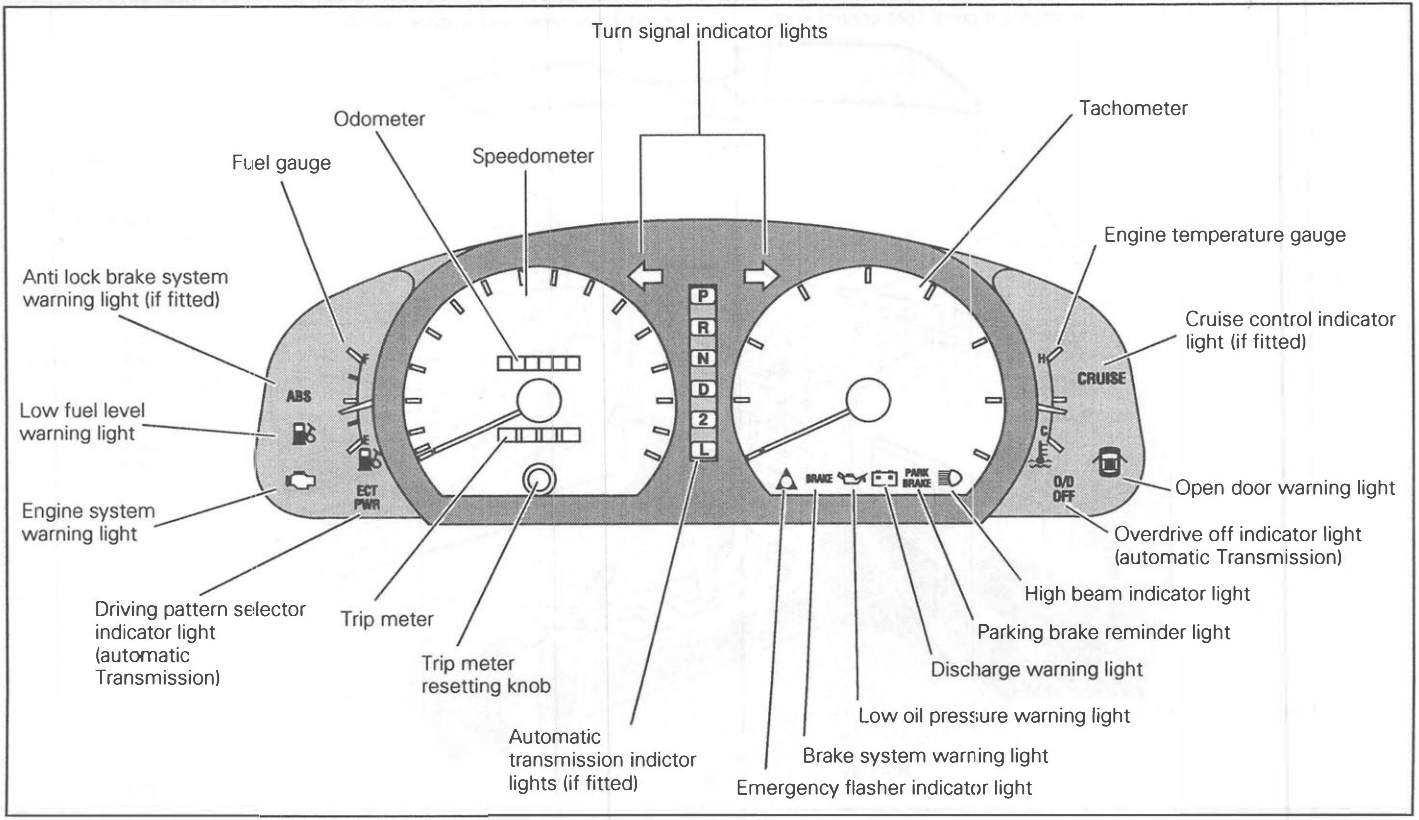
- Vehicle controls overview
- Instrument cluster overview

Vehicle controls overview


Anti-glare inside rear view mirror
Outside rear view mirror
Power window switch
Automatic transmission selector lever or manual transmission gear shift lever
Parking brake lever
Driving pattern selector button
Cruise control switch
Instrument cluster
Headlight and turn signal switch
Side vent
Side defroster outlet
Ignition switch
Power outside rear view mirror control switch
Fuse box
Hood lock release lever


Instrument panel light control knob
Windshield wiper and washer switch
Clock
Emergency flasher switch
Centre vents
Heater or air conditioner controls
Outside rear view mirror
Power door lock switch (vehicles with power windows)
Side defroster outlet
Side vent
Power window switches
Glovebox
Tilt steering lock release lever
Rear window defogger switch
Cigarette lighter
Audio
Ashtray
Cup holder
Power door lock switch (vehicles without power windows)

Instrument cluster overview

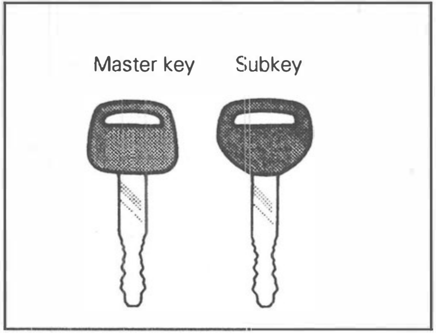

Turn signal indicator lights
Tachometer
Odometer
Fuel gauge
Speedometer
Engine temperature gauge
Anti lock brake system warning light (if fitted)
Cruise control indicator light (if fitted)
Low fuel level warning light
Engine system warning light
Open door warning light
Overdrive off indicator light (automatic Transmission)
High beam indicator light
Driving pattern selector indicator light (automatic Transmission)
Trip meter
Parking brake reminder light
Discharge warning light
Trip meter resetting knob
Low oil pressure warning light
Automatic transmission indictor lights (if fitted)
Brake system warning light
Emergency flasher indicator light
ABS
ECT PWR
P
R
N
D
2
L
BRAKE
PARK BRAKE
CRUISE
O/D OFF
F
E
H
C

OPERATION OF INSTRUMENTS AND CONTROLS

Keys, Doors and Fuel tank cap

- Keys
- Door locks
- Power window switches
- Trunk lid
- Back door
- Hood
- Fuel tank cap

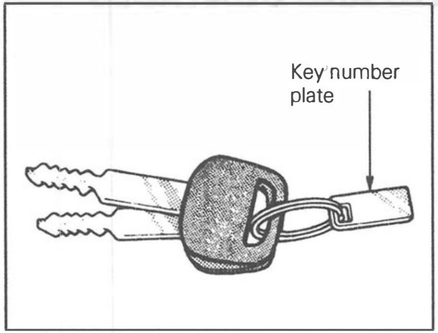
Keys



The master key works in every lock. The subkey will not work in the trunk and glove box.

To protect things locked in the trunk or glovebox when you have your vehicle parked, leave the subkey with the attendant.

Since the doors and trunk lid can be locked without a key, you should always carry a spare master key in case you accidentally lock your keys inside the vehicle.

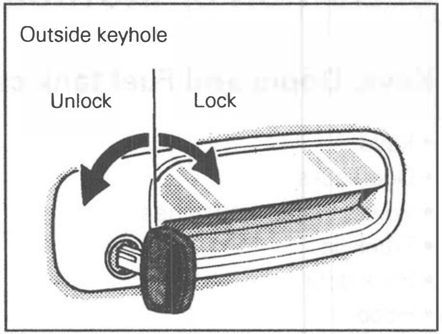


Keep the key number plate in a safe place such as your wallet, not in the vehicle.

If you should lose your keys or if you need additional keys, duplicates can be obtained at your Holden dealer using the key number.

You should also put a copy of the key number with your important papers.

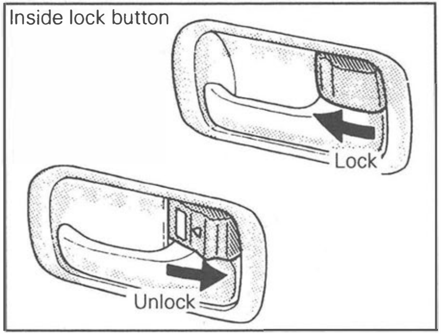
Door Locks



LOCKING WITH KEY

Turn the key towards the front of the vehicle to lock and towards the back to unlock.

Vehicles with power door lock system- All the side doors, including wagon back door, lock and unlock simultaneously with either front door.

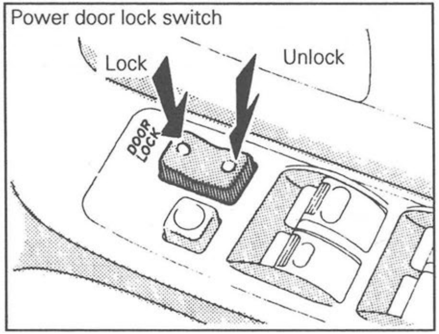


LOCKING WITH INSIDE LOCK BUTTON

Push the lock button forward to lock and backward to unlock the door.

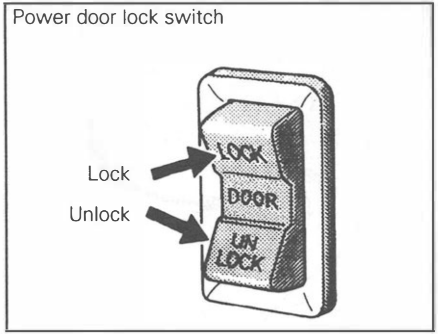
The driver's door can be opened from the inside even with the lock button in the lock position on vehicles with a power door lock system. If you want to lock the door from the outside, set the button in the lock position before closing the door. The outside door handle must be held up while the front door is being closed. Be careful not to lock your keys in the vehicle.

On vehicles with a power door lock system, the driver's door cannot be locked if you leave the key in the ignition switch.



LOCKING WITH POWER DOOR LOCK SWITCH - Vehicles with power windows.

To lock all the doors (including wagon back door) simultaneousely, push the switch on the "DOORLOCK" side. Pushing on the opposite side will unlock them.

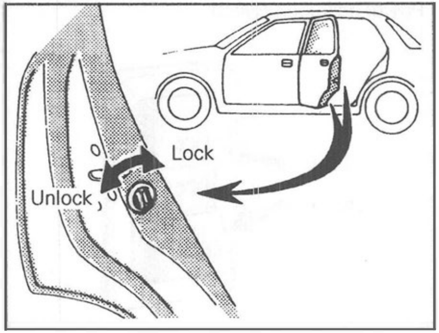


LOCKING WITH POWER DOOR LOCK SWITCH - Vehicles without power windows.

All doors (including wagon back door) may be automatically locked or unlocked by using this switch.

Push the "LOCK" side of the switch briefly to lock all doors from inside the vehicle. To unlock all doors, push the "UNLOCK" side of the switch.

Each door can be individually unlocked with the door lock button.



LOCKING WITH REAR DOOR CHILD PROTECTOR

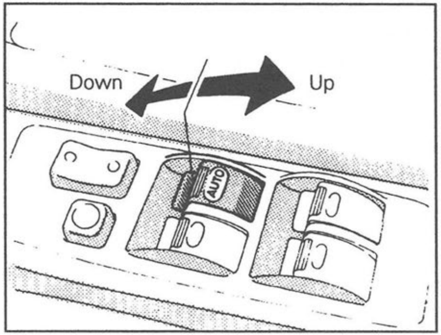
To lock a rear door so that it does not open from the inside, turn the knob clockwise and then close the door. When locked using the rear door child protector alone, the rear door can only be opened from the outside.

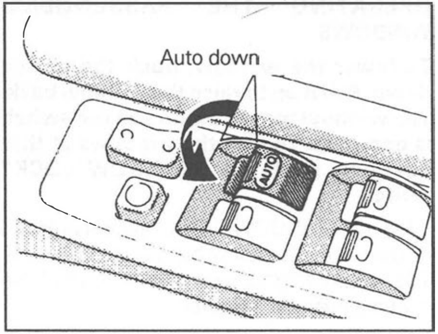
CAUTION:

Before driving, be sure that all the doors are closed.

When small children are on the rear seats of the vehicle, the child-protector system should be used to help prevent the doors from being opened unintentionally from the inside during driving.

Power window switches
(if fitted)





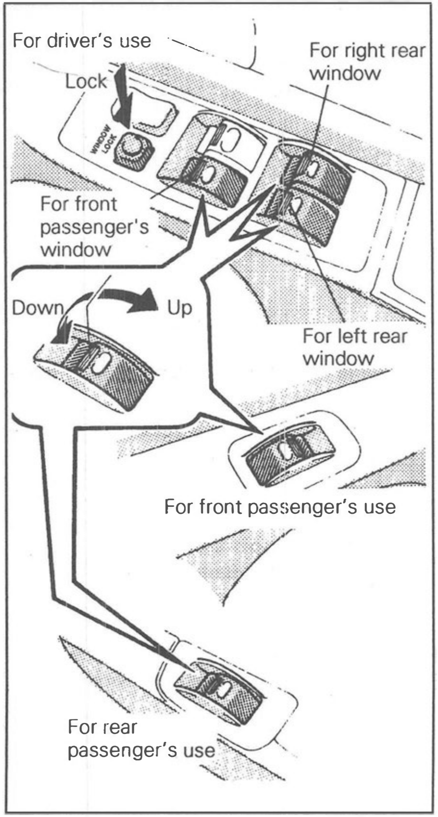
To raise or lower the windows, use the switch on each door. The passenger's windows can also be controlled by the switches on the driver's door.

The ignition key must be in the "ON" position.

OPERATING THE DRIVER'S WINDOW

To lower the window, push the switch halfway down. Pull it up to raise the window back. The window moves as long as the switch is operated. For automatic operation, push the switch fully down.

In automatic operation, the window will fully open even if you let go of the switch. To stop the window partway, lightly pull the switch for a second and release.


For driver's use
Lock
WINDOW LOCK
For right rear window
For front passenger's window
Down
Up
For left rear window
For front passenger's use
For rear passenger's use

OPERATING THE PASSENGER'S WINDOWS

To lower the window, push the switch down. Pull it up to raise the window back. The window moves as long as the switch is operated. To lock the windows at that position, push the "WINDOW LOCK" switch.

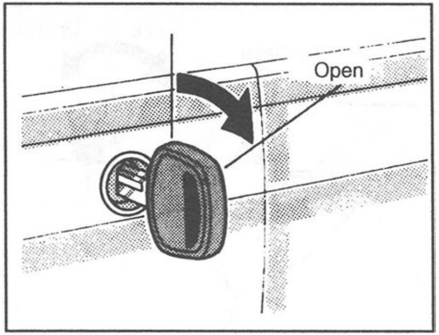
With the "WINDOW LOCK" switch pressed in, the windows cannot be raised or lowered. The indicator lights will tell you which of the switches can be operated.

CAUTION:

To avoid personal injury, observe the following .

- **When small children are in the vehicle, take care not to allow them to operate the switches unsupervised. Use the window locking feature described above or, if you must leave them unattended, remove the key from the ignition switch.**
- **When closing the windows, be sure that no one has their head, hands or arms protruding out the window.**

Trunk lid - Sedan



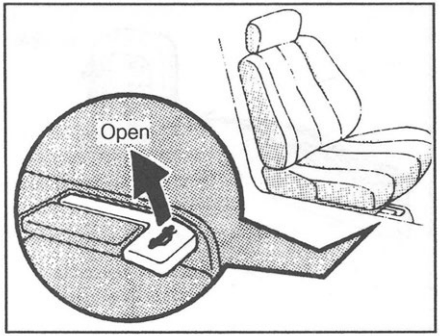
To open the trunk lid, insert the master key and turn it clockwise.

See "Luggage stowage precautions"in section 2 for precautions to observe when loading luggage.

To close the trunk lid, lower and press down on it. After closing the trunk lid, try pulling it up to make sure it is securely closed.

CAUTION:IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII
Keep the trunk lid closed while driving. This not only keeps the luggage from being thrown out but also prevents exhaust gases from entering the vehicle.
IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII

Trunk lid opener

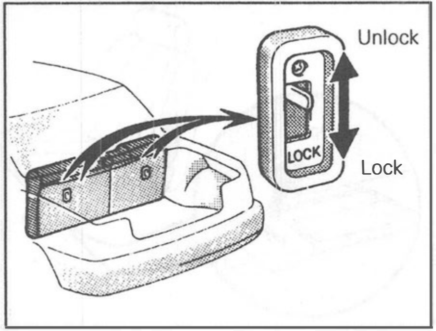


A trunk lid opener is situated on the floor, to the right of the driver's seat.

To open the trunk lid while sitting in the driver's seat, pull the lever up.

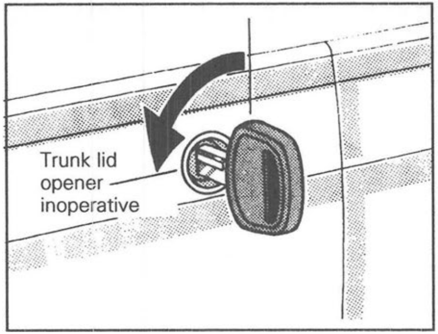
The trunk lid opener system will be cancelled by setting the trunk security system. See "Trunk security system".

Trunk security system



1. Open the trunk lid and lock the rear seat backs with the two security locks.

After locking the rear seat backs, try folding them down to make sure they are securely locked.

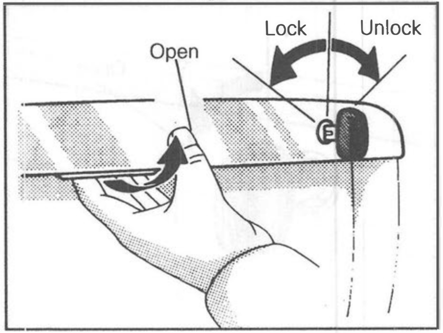


2. Insert the master key and turn it fully counter clockwise after closing the trunk lid.

After closing the trunk lid, try pulling it up to make sure it is securely closed.

To protect things locked in the trunk, always use this feature when you have your vehicle parked.

Back door - Wagon



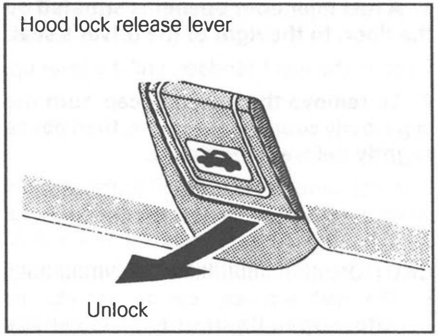
To open the back door, insert the master key and turn it clockwise to unlock. Then pull the handle and raise the door.

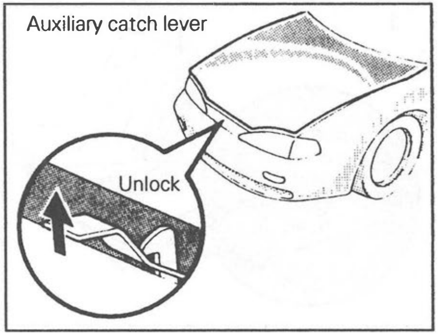
The back door will open completely by itself after it is raised about halfway.

To close the back door, lower and press down on it. After closing the back door, try pulling it up to make sure it is securely closed.

See "Lugguage stowage precautions" in section 2 for precautions to observe when loading lugguage.

Hood





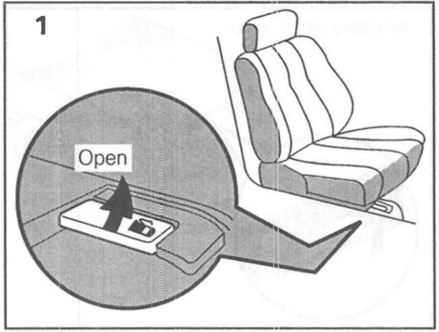
CAUTION:
Keep the back door closed while driving. This not only keeps the luggage from being thrown out but also prevents exhaust gases from entering the vehicle.

To open the hood, pull the hood lock release lever under the dash. The hood will spring up slightly. In front of the vehicle, press up on the auxiliary catch lever and lift the hood.

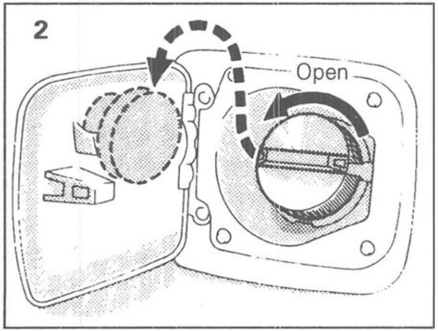
Before closing the hood, check to see that you have not forgotten any tools, rags, etc. Then lower the hood and make sure it locks into place. If necessary, press down gently on the front edge to lock it.

Fuel tank cap

1



2



1. A fuel filler door opener is situated on the floor, to the right of the driver's seat.

To open the fuel filler door, pull the lever up.

2. To remove the fuel tank cap, turn the cap slowly counter clockwise, then pause slightly before removing it.

It is not unusual to hear a slight swoosh when the cap is opened. When installing, turn the cap clockwise until you hear a click.

CAUTION:

- **Do not smoke, cause sparks or allow open flames near the vehicle when refuelling. The fumes are inflammable.**
- **When opening the cap, do not remove the cap quickly. Fuel may be under pressure and spray out of the fuel filler neck under hot weather conditions, etc., which may cause injury.**
- **Make sure that the cap is tightened securely to prevent fuel spillage in case of an accident.**
- **Use only a genuine Holden fuel tank cap for replacement. It has a built-in check valve.**

OPERATION OF INSTRUMENTS AND CONTROLS

Seats, Seat belts, Steering wheel and Mirrors

- Front seats
- Head restraints
- Fold-down rear seat
- Seat belts
- Child restraint anchorages
- Tilt steering wheel
- Power rear view mirror control
- Folding rear view mirrors
- Anti-glare inside rear view mirror

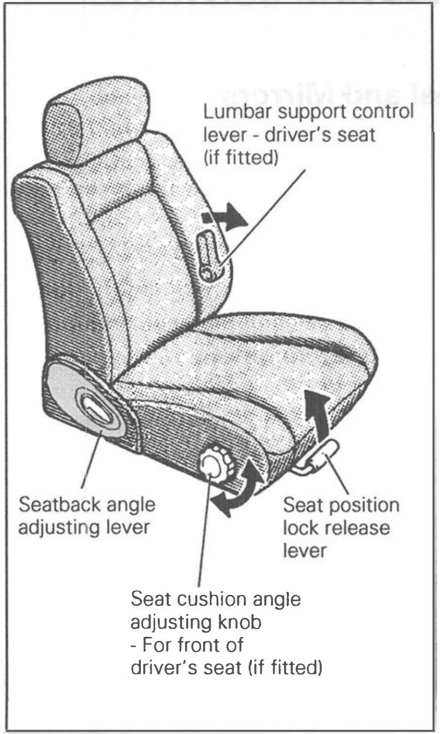
Front seats - Seat adjustment precautions

Adjust the driver's seat so that the foot pedals, steering wheel and instrument panel controls are within easy reach of the driver.

CAUTION:

- **Adjustments should not be made while the vehicle is moving, as the seat may unexpectedly move and cause the driver to lose control of the vehicle.**
- **When adjusting the seat, be careful not to hit the seat against a passenger or luggage.**
- **After adjusting the seat position, try sliding it forward and backward to make sure it is locked in position.**
- **After adjusting the seat back, exert body pressure to make sure it is locked in position.**

Adjusting front seats


Lumbar support control lever - driver's seat (if fitted)
Seatback angle adjusting lever
Seat position lock release lever
Seat cushion angle adjusting knob - For front of driver's seat (if fitted)

ADJUSTING SEAT POSITION

Pull the lock release lever up. Then slide the seat to the desired position with slight body pressure and release the lever.

Do not place anything under the front seats. It might interfere with the seat lock mechanism.

ADJUSTING SEAT BACK ANGLE

Lean forward and pull the lock release lever. Then lean back to the desired angle and release the lever.

After adjusting the seat back, exert body pressure to make sure it is locked in position. If desired, the seat backs may be fully reclined. They return to the upright position when the lever is lifted and no weight is on them.

CAUTION:

To reduce the risk of sliding under the lap belt during a collision, avoid reclining the seat back any more than needed. The seat belts provide maximum protection when the driver and the passenger are sitting up straight and well back into the seats. If you are reclined, the lap belt may slide past your hips and apply restraint forces directly to the abdomen. Therefore, in the event of a frontal collision, the risk of personnel injury may increase with increasing recline of the seat back.

ADJUSTING DRIVER'S SEAT CUSHION ANGLE (if fitted)

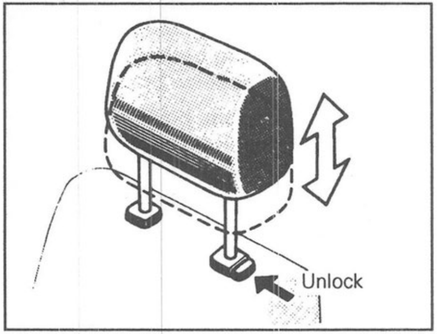
Turn the knob either way.

ADJUSTING DRIVER'S SEAT LUMBAR SUPPORT (if fitted)

Pull the lever forward and release.

Repeat this until you have a comfortable support.

Head restraints



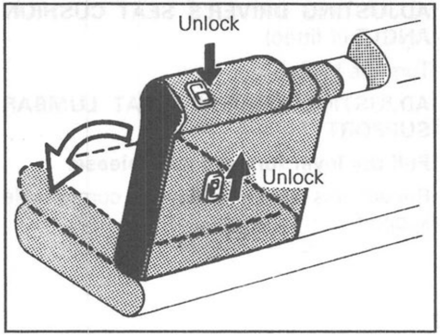
To raise the head restraint, pull it up. To lower it, press the lock release button and push the head restraint down.

The head restraint is most effective when it is close to your head. Therefore, using a cushion on the seat back is not recommended.

CAUTION:

- **Adjust the top of the head restraint so that it is closest to the top of your ears.**
- **After adjusting the head restraint, make sure it is locked in position.**
- **Do not drive with the head restraint removed.**

Fold-down rear seat back - Sedan



Unlock the seat back and fold it down.

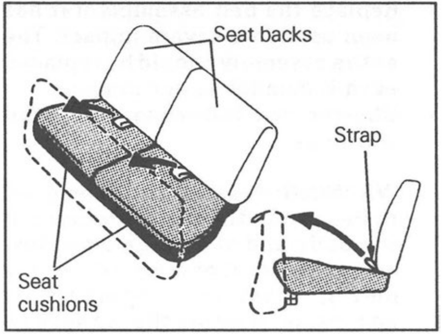
This will enlarge the trunk room as far as the front seat backs. See "Luggage stowage precautions" in section 2 for precautions to observe when loading luggage.

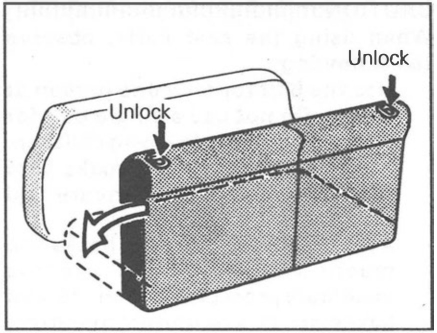
If desired, each seat back may be folded separately.

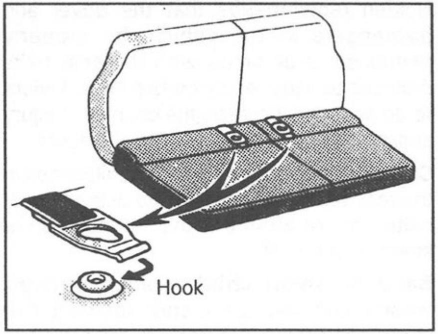
CAUTION:

When returning the seat back to the upright position, make sure that it is securely locked by pushing forward and rearward on the top of the seat back. Check that the seat belts are in position.

Fold-down rear seat back and cushion - Wagon







1. Swing the cushion up by pulling the strap.

It is hinged at the front edge, so just lift it up.

If desired, each cushion may be lifted separately.

CAUTION:IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII

When returning the bottom cushion to its original position, make sure the seat belts are not twisted or caught under the bottom cushion and are arranged in their proper position for ready use.

IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII

2. Unlock the seat back and fold it down.

This will enlarge the luggage compartment as far as the raised bottom cushion. See "Luggage stowage precautions" in section 2 for precautions to observe when loading luggage.

If desired, each seat back may be folded separately.

3. After folding the seat back down, hook the strap to the tab on the reverse side of the seat back.

CAUTION:IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII

When returning the seat back to the upright position:

- **Make sure the seat belts are not twisted or caught in the seat back and are arranged in their proper position for ready use.**
- **Make sure the seat back is securely locked by pushing forward and rearward on the top of the seat back.**

IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII

Seat belts -
Seat belt precautions

Holden recommends that the driver and passengers in the vehicle be properly restrained at all times with the seat belts provided as required by certain laws. Failure to do so could increase the chance of injury and/or the severity of injury in accidents.

Children. We recommend that children sit in the rear seat and be restrained with the seat belts. Do not allow the child to stand up or kneel on the seat.

Baby or small child. Holden strongly recommend you use a child restraint that complies with the appropriate standards and is compatible with your vehicle. Before installing the child restraint, always read the manufacturer's instructions and ensure you read "Child restraint anchorages" in this section. Take care in ensuring the child restraint is properly fitted for your child's safety and comfort.

Pregnant woman. Holden recommends the use of a seat belt as required by certain laws. Ask your doctor for specific recommendations. The lap belt should be worn securely and as low as possible over the hips and not on the waist.

Injured person. Holden recommends the use of a seat belt as required by certain laws. Depending on the injury, however, first check with your doctor.

CAUTION:IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII
When using the seat belts, observe the following:

- **Use the belt for only one person at a time. Do not use a single belt for two or more people - even children.**
- **After inserting the tab, make sure that the connection is secure and the belt is not twisted.**
- **Avoid reclining the seat backs too much. The seat belts provide maximum protection when the seat backs are in the upright position. (See the seat adjustment instructions.)**
- **Be careful not to damage the belt webbing or hardware and take care that they do not get caught or pinched in the seat or doors.**
- **Inspect the belt system periodically. Check for cuts, frays and loose parts. Damaged parts should be replaced. Do not disassemble or modify the system.**
- **Keep the belts clean and dry. If they need cleaning, use a mild soap solution or lukewarm water. Never use bleach, dye, or abrasive cleaners-they may severely weaken the belts.**
- **Replace the belt assembly if it has been used in a severe impact. The entire assembly should be replaced even if damage is not obvious.**
- **Observe the following additional warnings.**

WARNING: Seat belts are designed to bear upon the bony structure of the body and should be worn low across the front of the pelvis, or the pelvis, chest and shoulders as applicable; wearing the lap section of the belt across the abdominal area must be avoided.
Seat belts should be adjusted as firmly as possible, consistent with comfort, to provide the protection for which they have been designed. A slack belt will greatly reduce the protection afforded to the wearer. Care should be taken to avoid contamination of the webbing with polishes, oils and chemicals and particularly battery acid. Cleaning may safely be carried out using mild soap and water. The belt should be replaced if webbing becomes frayed, contaminated or damaged.

It is essential to replace the entire assembly after it has been worn in a severe impact even if damage to the assembly is not obvious.

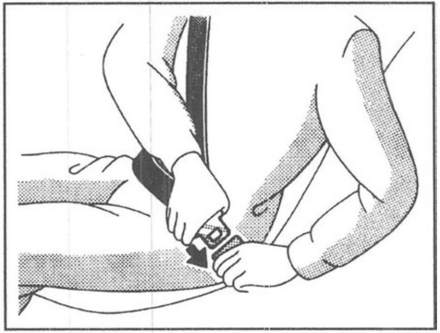
Belts should not be worn with straps twisted.

Each belt assembly must only be used by one occupant; it is dangerous to put a belt around a child being carried on the occupant's lap.

WARNING: No modifications or additions should be made by the user which will either prevent the seat belt adjusting devices from operating to remove slack or prevent the seat belt assembly from being adjusted to remove slack.

Failure to heed this warning may lead to severe injury or death.

Seat belts: 3-point emergency locking retractor (ELR)

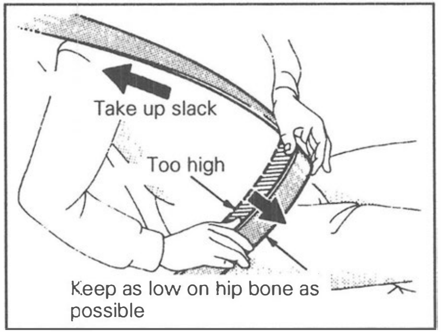


Adjust the seat as needed and sit up straight and well back in the seat. To fasten your belt, pull it out of the retractor and insert the tab into the buckle.

You will hear a click when the tab locks into the buckle.

The seat belt length automatically adjusts to your size and the seat position.

The retractor will lock the belt during a sudden stop or on impact. It also may lock if you lean forward too quickly. A slow, easy motion will allow the belt to extend and you can move around freely.

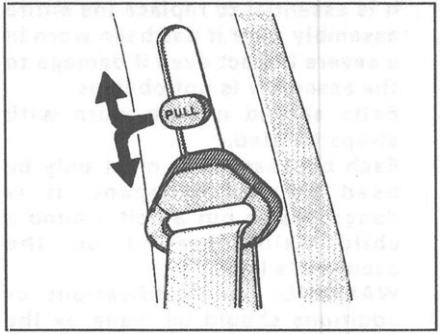

Take up slack
Too high
Keep as low on hip bone as possible

Adjust the position of the lap and shoulder belts.

Position the lap belt as low as possible on your hips, not on your waist, then adjust it to a snug fit by pulling the shoulder portion upward through the latch plate.

CAUTION:

- **High-positioned lap belts and loose-fitting shoulder belts both could increase the chance of injury or death due to sliding under the lap belt during an accident.**
- **For your safety, do not place the shoulder belt under your arm.**



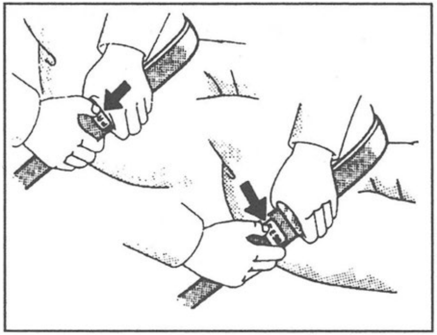
Seat belts with an adjustable shoulder anchor.

Adjust the shoulder anchor position to your size.

To adjust the anchor position, pull the knob out and slide it up or down. Release the knob and make sure the anchor is locked in position.

CAUTION:

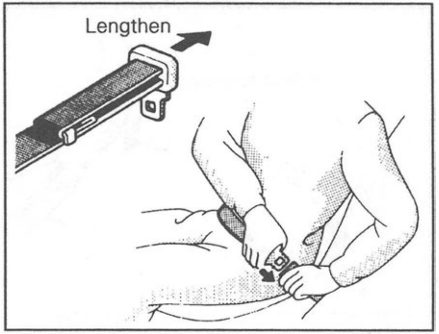
Always be sure that the belt is positioned across the shoulder, as close to your neck as possible and not on your upper arm or neck. Failure to do so could reduce the amount of protection in an accident and increase the chance of injury.



To release the belt, press the buckle release button and allow the belt to retract.

If the belt does not smoothly retract, withdraw the belt from the retractor and check for kinks or twists. Then make sure that it remains untwisted as it retracts.

2-point rear centre seat belt

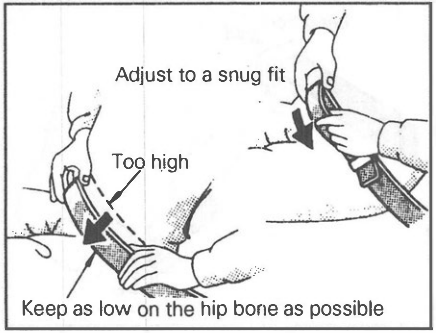


Sit up straight and well back in the seat. To fasten your belt, insert the tab into the buckle.

You will hear a click when the tab locks into the buckle.

If the belt is not long enough for you, hold the tab at a right angle to the belt and pull on the tab.

continued overleaf


Adjust to a snug fit
Too high
Keep as low on the hip bone as possible

Remove excess length of the belt and adjust the belt position.

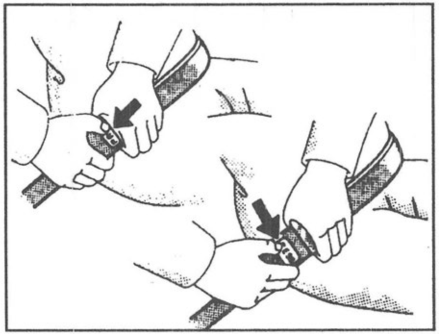
To shorten the belt, pull the free end of the belt.

Position the lap belt as low as possible on your hips, not on your waist, then adjust it to a snug fit.

CAUTION:IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII

High-positioned lap belts could increase the chance of injury or death due to sliding under the lap belt during an accident.

IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII



To release the belt, press the buckle release button.

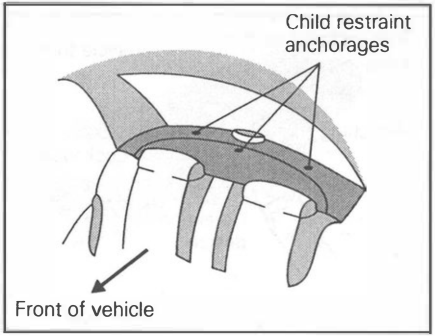
NOTICE:

When the rear seat backs and cushion have been repositioned after having been folded, make sure that the seat belt tongue and buckle are positioned on top of the cushion so that they are accessible. See "Fold-down rear seats" in this section.

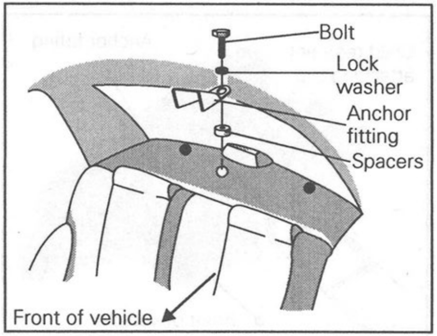
Child restraint anchorages-Sedan

To facilitate installation of child restraints, the sedan has three child restraint anchorage points concealed beneath plugs in the rear parcel tray. When installing a child restraint, use the following instructions in conjunction with the child restraint manufacturer's installation instructions.

CAUTION:IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII
Fitting a child restraint is a safety-related procedure. Ensure that you follow these instructions carefully.
IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII



1. Remove the plastic cover plug immediately behind where the child restraint will be positioned on the rear seat. In the instance where only one child restraint is installed, Holden recommends positioning the restraint in the centre seating position of the rear seat.

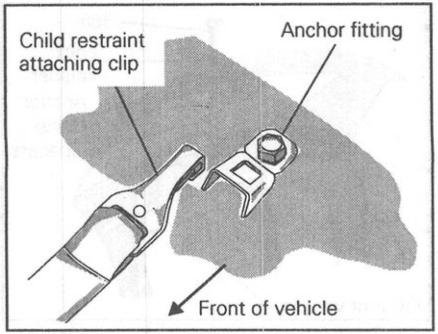


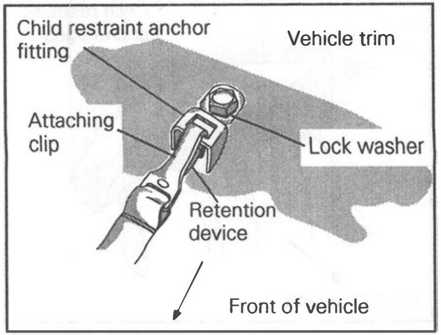
2. Install the child restraint anchorage fittings.

a.) Install 5/16"-18 UNC x 30mm bolt through lock washer, anchor fitting and 15mm of spacers (one thick and one thin spacer).

b.) Ensure bolt is securely tightened with the anchor fitting correctly orientated toward the front of the vehicle.

continued overleaf


Child restraint attaching clip
Anchor fitting
Front of vehicle


Child restraint anchor fitting
Vehicle trim
Attaching clip
Lock washer
Retention device
Front of vehicle

3. Attach the child restraint attaching clip to the anchor fitting. Make sure that the clip is securely attached.

CAUTION:

- **This vehicle has been manufactured for use with the type of child restraint anchor fitting shown above.**
- **Ensure attaching clip is properly engaged and retention device is correctly positioned as shown above.**
- **To ensure the 5/16" - 18 UNC x 30mm attachment bolt has a minimum five full threads of engagement, the child restraint anchor fitting and lock washer must not exceed 5mm in total thickness when installed.**

WARNING: Child restraint anchorages are designed to withstand only those loads imposed by correctly fitted child restraints. Under no circumstances are they to be used for adult seat belts, harnesses or for attaching other items or equipment to the vehicle.

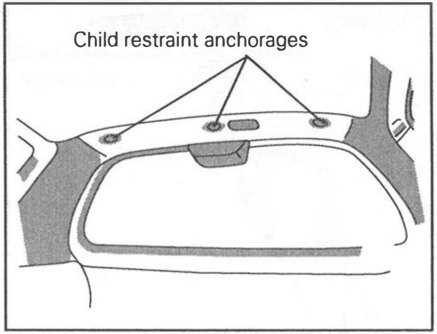
NOTICE:

If you travel with one of the seat backs folded and you are taking a child passenger, attached the child restraint to the anchorage immediately behind the seat back that is not folded. See "Fold-down rear seats" in this section.

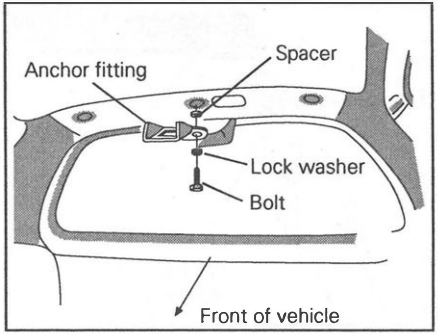
Child restraint anchorages - Wagon

To facilitate installation of child restraints, the wagon has three child restraint anchorage points concealed beneath plugs in the rear roof by the tailgate hinge. When installing a child restraint, use the following instructions in conjunction with the child restraint manufacturer's installation instructions.

CAUTION:IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII
Fitting a child restraint is a safety-related procedure. Ensure that you follow these instructions carefully.
IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII



1. Remove the plastic cover plug immediately behind where the child restraint will be positioned on the rear seat. In the instance where only one child restraint is installed, Holden recommends positioning the restraint in the centre seating position of the rear seat.

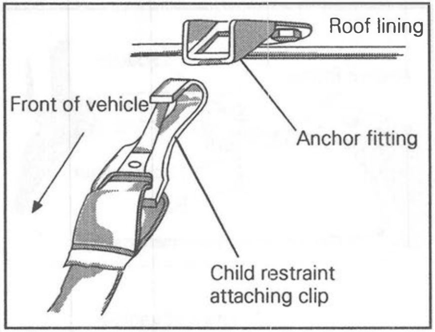


2. Install the child restraint anchorage fittings.

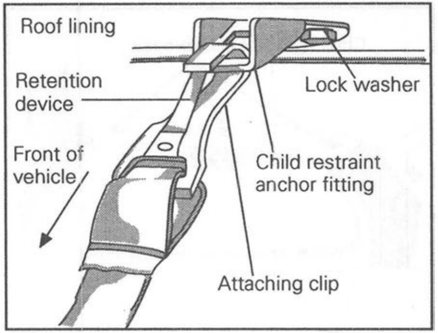
a.) Install 5/16"-18 UNC x 30mm bolt through lock washer, anchor fitting and 10mm spacer (one thick spacer).

b.) Ensure bolt is securely tightened with the anchor fitting correctly orientated toward the front of the vehicle.

continued overleaf


Roof lining
Front of vehicle
Anchor fitting
Child restraint attaching clip

3. Attach the child restraint attaching clip to the anchor fitting. Make sure that the clip is securely attached.


Roof lining
Retention device
Lock washer
Front of vehicle
Child restraint anchor fitting
Attaching clip

CAUTION:

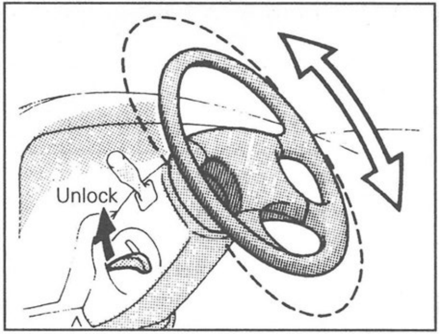
- **This vehicle has been manufactured for use with the type of child restraint anchor fitting shown above.**
- **Ensure attaching clip is properly engaged and retention device is correctly positioned as shown above.**
- **To ensure the 5/16" - 18 UNC x 30mm attachment bolt has a minimum five full threads of engagement, the child restraint anchor fitting and lock washer must not exceed 5mm in total thickness when installed.**
- **To avoid inadvertent injury by contact with the installed anchor fitting (eg. when loading or unloading through the back door), Holden recommends that the child restraint anchor fitting be removed when not in use.**

WARNING: Child restraint anchorages are designed to withstand only those loads imposed by correctly fitted child restraints. Under no circumstances are they to be used for adult seat belts, harnesses or for attaching other items or equipment to the vehicle.

NOTICE:

If you travel with one of the seat backs folded and you are taking a child passenger, attached the child restraint to the anchorage immediately behind the seat back that is not folded. See "Fold-down rear seats" in this section.

Tilt steering wheel



To change the steering wheel angle, pull up the lock release lever, tilt the steering wheel to the desired angle and release the lever.

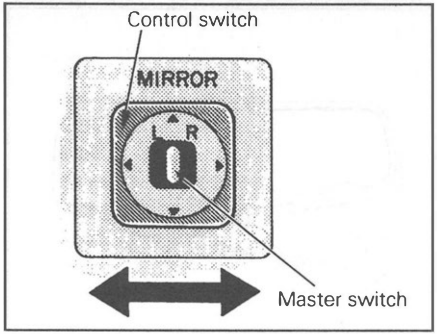
The steering wheel will spring up to the highest position when the lock release lever is pulled up.

CAUTION:IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII

- **This adjustment should not be made while the vehicle is moving.**
- **After adjusting the steering wheel, try moving it up and down to make sure it is locked in position.**

IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII

Power rear view mirror control



To adjust the power rear view mirror, first place the master switch at "R" (right) or "L" (left) depending on which mirror needs adjusting, then push the control switch in the desired direction.

If the engine is not running, the key must be in the "ACC" position.

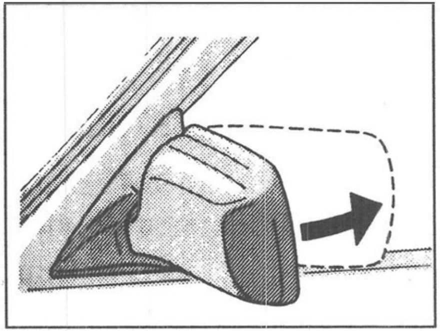
NOTICE:

If ice should jam the mirror, do not operate the control or scrape the mirror face. Use a spray deicer to free the mirror.

On some models, the left-hand mirror is equipped with a convex mirror glass to provide the driver with a wider field of view.

Objects viewed in the left hand side power rear view mirror may be closer than they appear to be.

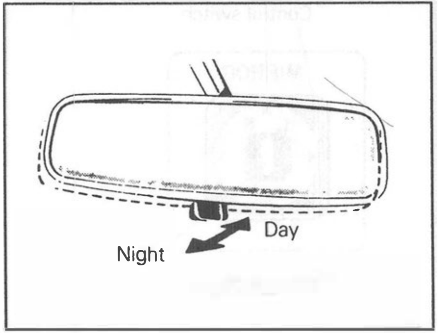
Folding rear view mirrors



To fold the rear view mirror, push backward.

The rear view mirrors can be folded backward for parking in restricted areas or when running your vehicle through an automatic car wash to reduce the possibility of damage.

Anti-glare inside rear view mirror



Pull the lever toward you to reduce glare from the headlights of the vehicle behind you during night driving.

Before adjusting the mirror to the position with most clarity, push the day-night change lever away from you (daylight driving position).

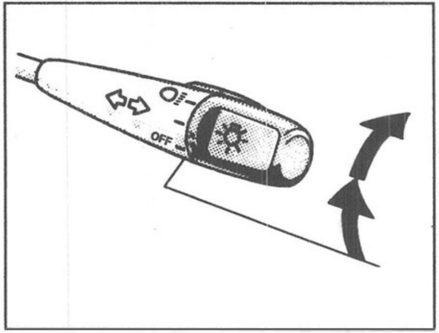
Remember that by reducing glare you also lose some rear view clarity.

OPERATION OF INSTRUMENTS AND CONTROLS

Lights, Wipers and Defogger

- Headlight and turn signal switch
- Emergency flasher switch
- Instrument panel light control
- Interior light
- Ignition switch light
- Luggage compartment light
- Windshield wiper and washer switch
- Rear window wiper and washer switch
- Rear window defogger switch

Headlight and turn signal switch



To turn the lights on, twist the knob on the end of the lever.

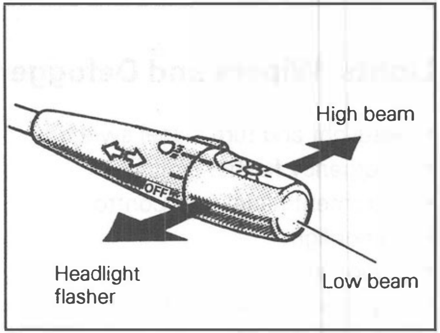
FIRST CLICKSTOP: Only the parking, tail, licence plate and instrument panel lights turn on.

SECOND CLICKSTOP: The headlights also turn on.

Should the headlights be inadvertently left switched on, the headlights will turn off automatically when the driver's door is opened with the ignition turned off. To turn them on again, turn the key to "ON" position or actuate the headlight switch.

NOTICE:

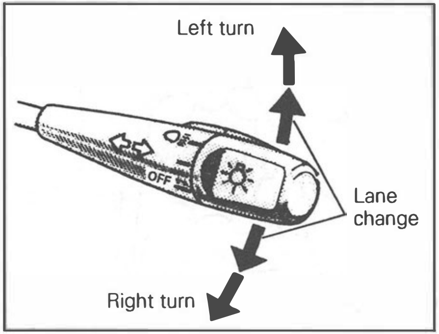
To prevent the battery from being discharged, do not leave the lights on for a long period while the engine is not running.



To change from low beam to high beam, push the lever away from you. Pull it toward you to return to low beam. To flash the headlights, pull the lever towards you from the low beam position.

A blue light on the dashboard indicates high beam is on.

The headlight flasher works even when the headlight switch is off.

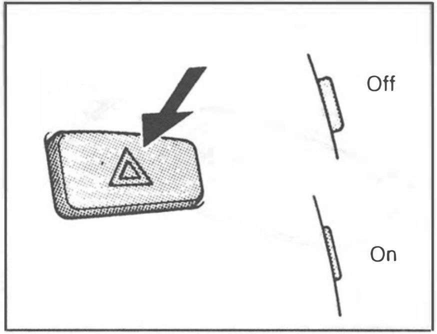


For signalling turns, move the lever up or down in the conventional manner.

The key must be in the "ON" position.

The turn signal is self-cancelling after a turn, but after a lane change, you may have to cancel it by hand. You can also signal a lane change by moving the turn signal lever partway and holding it there. If the green dashboard light flashes faster than normal, it indicates that a front or rear turn signal bulb has burned out.

Emergency flasher switch



To turn on the emergency flashers, push in the switch.

All the turn signal lights will flash .

Turn on the emergency flashers to warn other drivers if your vehicle must be stopped where it might be a traffic hazard.

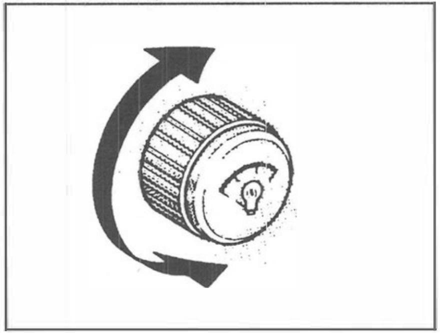
Always pull as far off the road as possible.

The turn signal light switch will not work when the emergency flashers are operating.

NOTICE:

To prevent the battery from being discharged, do not leave the switch on longer than necessary when the engine is not running.

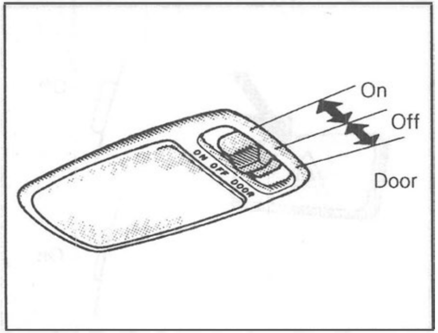
Instrument panel light control



To adjust the brightness of the instrument panel lights, turn the knob.

On some models, this adjustment will also vary the brightness of the airflow controls, audio and automatic transmission lever lights.

Interior light



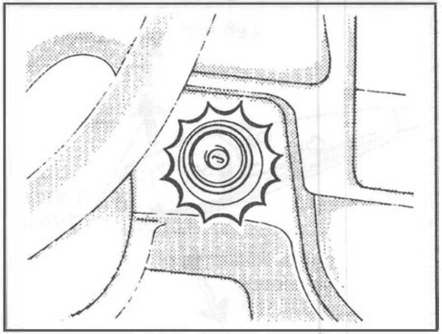
The interior light switch has three positions.

"ON": The light stays on with the door opened or closed regardless of any other switches.

"DOOR": The light comes on while any door is opened.

"OFF": The light remains off even with a door opened.

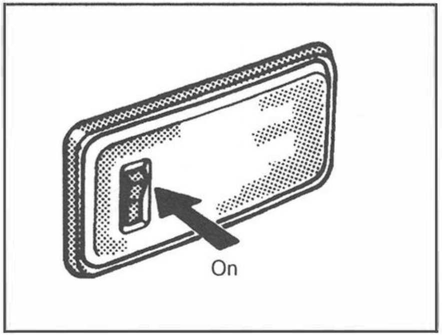
Ignition switch light



For easy access to the ignition switch, the ignition switch light is designed to come on when any of the side doors are opened.

The light remains on for a certain time after they are closed.

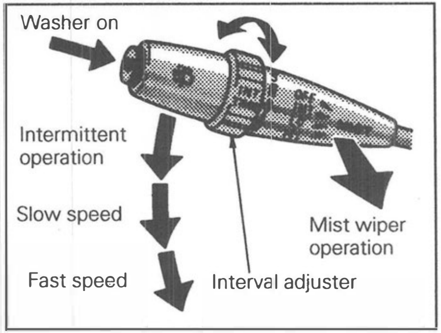
Luggage compartment light - Wagon



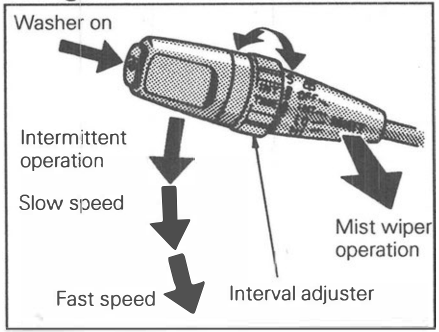
To turn the luggage compartment light on, open the back door and push the switch. Closing the back door will turn the light off.

With the switch in the "ON" position, the light will automatically turn on when the back door is opened and turn off when closed.

Windshield wiper and washer switch: - Sedan


Washer on
Intermittent operation
Slow speed
Fast speed
Mist wiper operation
Interval adjuster

- Wagon


Washer on
Intermittent operation
Slow speed
Fast speed
Mist wiper operation
Interval adjuster

To turn the wipers on, move the lever. To make the washer squirt, push the button on the end of the lever.

The key must be in the "ON" position.

The wipers will operate at intervals when the lever is in the "INT" position. With the lever in this position, the wipers can be adjusted to operate at intervals of 3 to 10 seconds depending on the interval adjusting setting between "S" and "F".

If a single wipe is desired in mist, push the lever to the "MIST" position and release it.

Also, the wipers will automatically operate a couple of times after the washer squirts even with the lever in the "OFF" position.

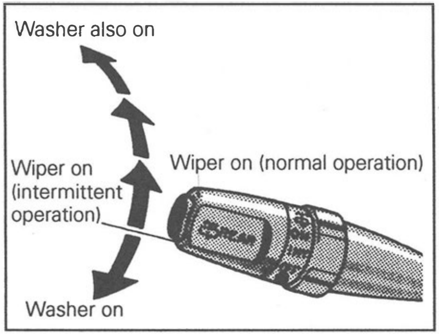
If the washer does not work, check to see whether the washer tank is empty. For information on adding washer fluid, see "Adding washer fluid" in section 7 "Electrical components".

In cold weather, warm the windshield with the defroster before using the washer. This will help prevent icing which could block your vision.

NOTICE:

Do not operate the wipers if the windshield is dry. Doing so may scratch the glass.

Rear window wipers and washer switch: - Wagon


Washer also on
Wiper on (intermittent operation)
Wiper on (normal operation)
Washer on
REAR

To turn the rear wipers and washer on, twist the knob at the end of the lever.

The key must be in the "ON" position.

The wipers will operate at intervals when the knob is in the "INT" position.

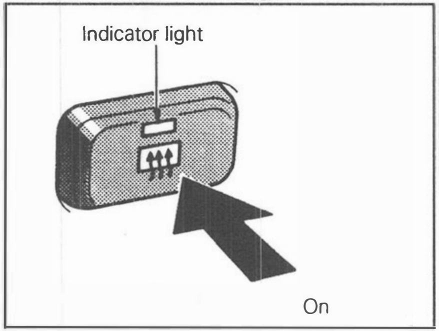
The washer squirts at the two marked knob positions. The knob will automatically return from these positions when it is released.

If the washer does not work, check to see whether the washer tank is empty. For information on adding washer fluid, see "Adding washer fluid" in section 7 "Electrical components".

NOTICE:

Do not operate the rear wipers if the rear window is dry. Doing so may scratch the glass.

Rear window defogger switch



To defog or defrost the rear window, push the switch.

The key must be in the "ON" position.

The thin heater wires on the inside of the rear window will quickly clear the window surface. An indicator light will illuminate to indicate the defogger is operating.

If further defrosting or defogging is desired, simply actuate the switch again. When the surface has cleared, push the switch once again to turn the defogger off. Continuous use may cause the battery to discharge, especially during stop and go driving. The defogger is not designed for drying rain water or for melting snow.

NOTICE:

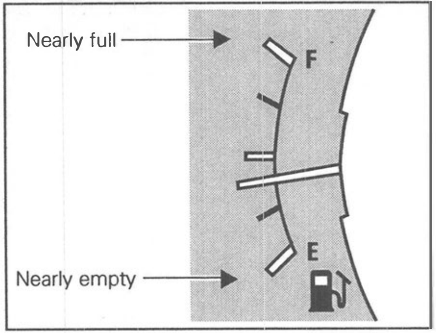
When cleaning the inside of the rear window, be careful not to scratch or damage the heater wires.

OPERATION OF INSTRUMENTS AND CONTROLS

Gauges, Meters and Warning lights

- Fuel gauge
- Engine temperature gauge
- Tachometer
- Odometer and trip meter
- Warning lights

Fuel gauge



The gauge indicates the approximate quantity of fuel remaining in the tank.

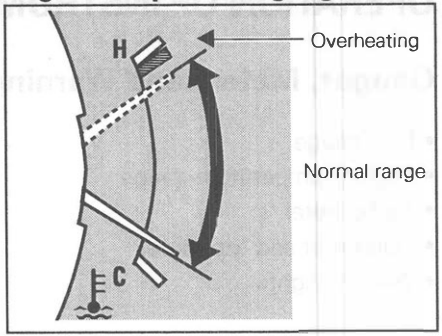
It is a good idea to keep the tank over 1/4 full.

This fuel gauge has a non-return type needle. Therefore, the needle will remain at the indicated fuel level position regardless of the ignition switch position.

NOTICE:

Do not drive with the fuel level below the "E" or with the low fuel level warning light on. It may cause engine misfire and damage to the catalytic converter. See section 2 for information on the catalytic converter.

Engine temperature gauge



The gauge indicates the engine coolant temperature when the ignition switch is on. The engine operating temperature will vary with changes in weather and engine load.

If the needle points to the red zone or higher, stop your vehicle and allow the engine to cool.

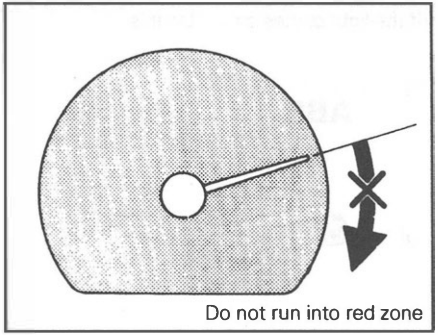
Your vehicle may overheat during severe operating conditions, such as:

- Driving up a long hill on a hot day.
- Reducing speed or stopping after high speed driving.
- Idling for a long period with the air conditioner on in stop-and-go traffic.
- Towing a trailer.

NOTICE:

Do not continue driving with an overheated engine. See "If your vehicle overheats" in section 4.

Tachometer



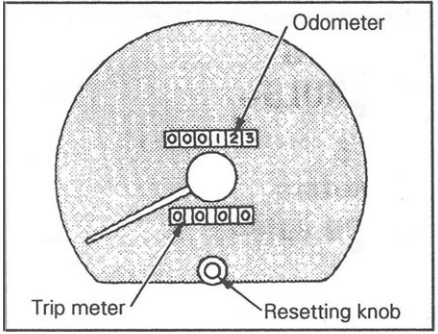
The tachometer indicates engine speed in thousands of revolutions per minute (rpm). Use it while driving to select correct shift points and to prevent engine lugging and over revving.

Driving with the engine running too fast causes excessive engine wear and poor fuel economy. Remember, in most cases the slower the engine speed, the greater the fuel economy.

NOTICE:

Do not run the needle into the red zone. This may cause severe engine damage.

Odometer and trip meter



The odometer records the total distance the car has been driven. The trip meter may be set to record the distance on each trip. To set the trip meter, press the knob in and release it.

The black digits on a white background indicate tenths of kilometres travelled.

Warning lights

If the light comes on...		Do this.
(a)	**PARK BRAKE**	Release parking brake.
(b)	**BRAKE**	Stop and check.
(c)	🔋	Stop and check.
(d)	🛢	Stop and check.
(e)	⛽	Fill up fuel tank.

If the light comes on...		Do this.
(f)	**ABS**	Take vehicle to Holden dealer. (if fitted)
(g)	🚘	Close all doors.
(h)	⚙	Take vehicle to Holden Dealer.

(a) Parking Brake Reminder Light

If this light is on, make sure the parking brake is fully released. The light should go off.

(b) Brake System Warning Light

If this light comes on and stays on while you are driving, slow down and pull off the road. Then stop the vehicle carefully. There may be a problem somewhere in the brake system. Check the fluid level of the see-through reservoir.

If the brake fluid level is low...

At a safe place, test your brakes by starting and stopping.

- If you judge that the brakes still work adequately, drive cautiously to your nearest dealer or shop for repairs.
- If the brakes are not working, have the vehicle towed in for repairs. (For towing information, see section 4.)

CAUTION:

Continued normal driving with a low brake fluid level is dangerous.

If the brake fluid level is correct...
Have the warning system checked by your Holden dealer.

(c) Battery discharge Warning Light

This light warns that the battery is being discharged.

If it comes on while you are driving, there is a problem somewhere in the charging system.

The engine ignition will continue to operate however, until the battery is discharged. Turn off the air conditioner, blower, radio, etc., and drive directly to the nearest Holden dealer or repair shop.

(d) Low Oil Pressure Warning Light

This light warns that the oil pressure is too low.

If it flickers or stays on while you are driving, pull off the road to a safe place and stop the engine immediately. Call a Holden dealer or qualified repair shop for assistance.

The light may occasionally flicker when the engine is idling or it may come on briefly after a hard stop. There is no cause for concern if it then goes out when the engine is accelerated slightly.

The light may come on when the oil level is extremely low. It is not designed to indicate lowoil level and the oil level must be checked using the level dipstick.

NOTICE:

Do not drive the vehicle with the warning light on, even for a short distance, until the cause is fixed. It may damage the engine.

(e) Low Fuel Level Warning Light

This light indicates that the fuel tank is nearly empty. Fill up the tank as soon as possible.

(f) Anti-lock Brake System Warning Light

This light warns that there is a problem somewhere in your anti-lock brake system. When the anti-lock brake system warning light is on (and the brake system warning light is off), the brake system operates conventionally but without anti-lock function.

If it comes on while you are driving, have your vehicle checked by your Holden dealer as soon as possible.

Note:

During normal operation, the anti-lock brake system warning light will come on for 3 seconds when the ignition is turned on.

(g) Open Door Warning Light

This light remains on until all the side doors and back door (wagon) are completely closed.

(h) Engine System Warning Light

This light warns that there is a problem somewhere in your engine electrical system.

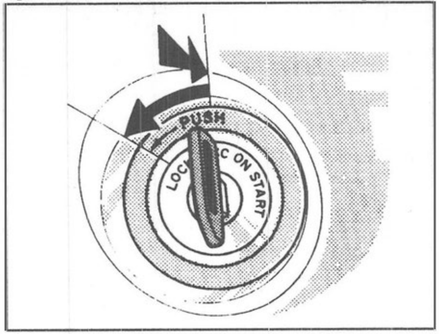
If it comes on while you are driving, have your vehicle checked and repaired by your Holden dealer as soon as possible.

OPERATION OF INSTRUMENTS AND CONTROLS

Ignition switch, Transmission and Parking brake

- Ignition switch with steering lock
- Automatic transmission
- Manual transmission
- Parking brake
- Cruise control

Ignition switch with steering lock



"START" - Starter motor on. The key will return to the "ON" position when released.

For starting tips, see section 3.

"ON" - Engine on and all accessories on.

This is the normal driving position.

"ACC" - Accessories such as the radio operate, but the engine is off.

"LOCK" - Engine is off and the steering wheel is locked. The key can be removed only at this position.

You must push in the key to turn it from "ACC" to the "LOCK" position.

When starting the engine, the key may seem stuck at the "LOCK" position. To free it, first be sure the key is pushed all the way in, then rock the steering wheel slightly while turning the key gently.

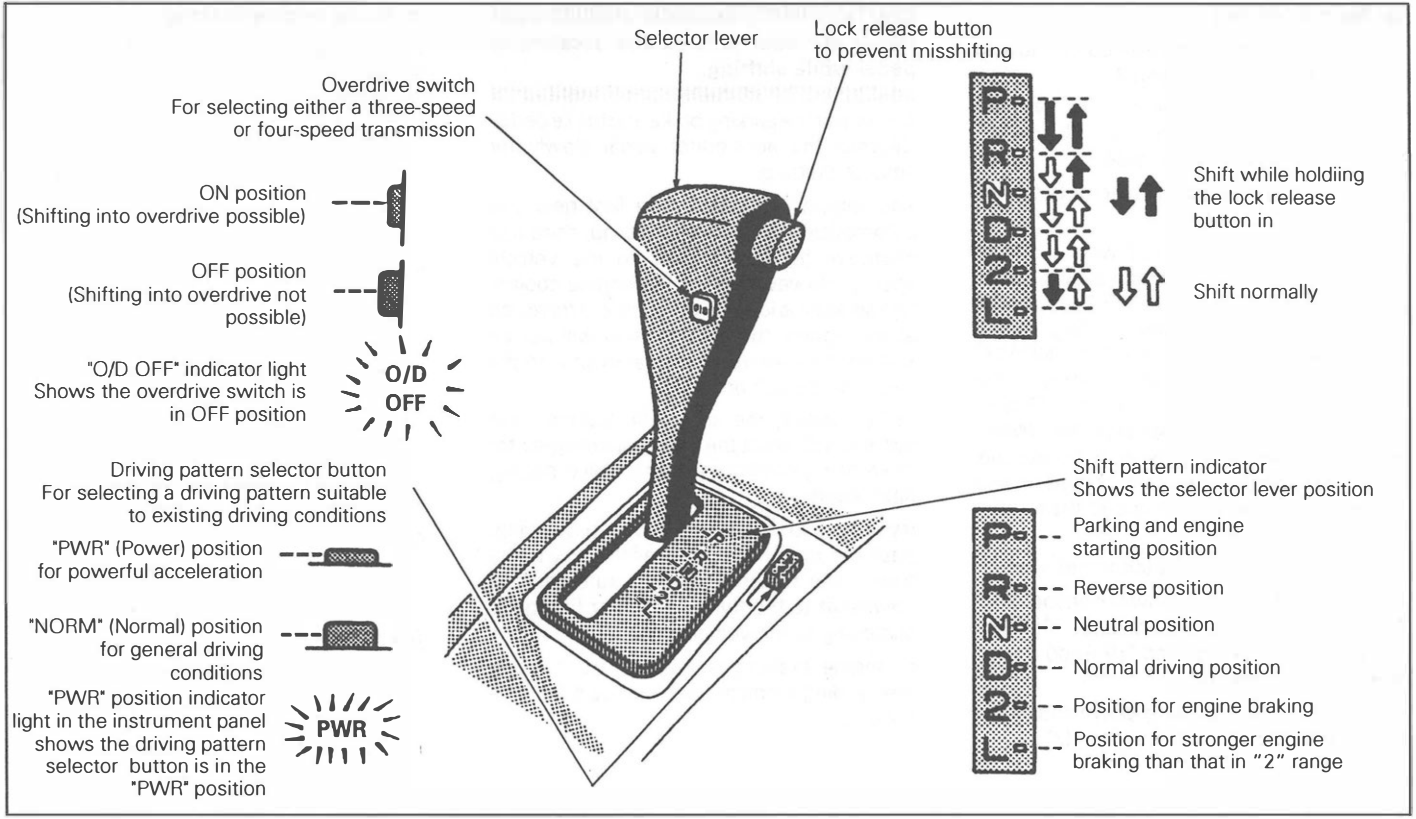
CAUTION:

Never remove the key when the vehicle is moving, as this will lock the steering wheel and result in loss of steering control.

NOTICE:

Do not leave the key in the "ON" position if the engine is not running. The battery will discharge and the ignition system could be damaged.

Automatic transmission



Selector lever

Lock release button
to prevent misshifting

Overdrive switch
For selecting either a three-speed
or four-speed transmission

ON position
(Shifting into overdrive possible)

OFF position
(Shifting into overdrive not
possible)

"O/D OFF" indicator light
Shows the overdrive switch is
in OFF position

Driving pattern selector button
For selecting a driving pattern suitable
to existing driving conditions

"PWR" (Power) position
for powerful acceleration

"NORM" (Normal) position
for general driving
conditions

"PWR" position indicator
light in the instrument panel
shows the driving pattern
selector button is in the
"PWR" position

Shift while holdiing
the lock release
button in

Shift normally

Shift pattern indicator
Shows the selector lever position

P -- Parking and engine starting position

R -- Reverse position

N -- Neutral position

D -- Normal driving position

2 -- Position for engine braking

L -- Position for stronger engine braking than that in "2" range

(a) Normal driving

1. Start the engine as instructed in "How to start the engine" in section 3.

The transmission must be in "P' or "N". The engine will not start in "R", "2", "L" or "D" range even if the key is turned.

2. Set the driving pattern selector button to the "NORM" position.

Your transmission is fitted with a driving pattern selector button which allows you to select either "NORM" or "PWR" to suityour driving condition. For ordinary driving, Holden recommends that you use the "NORM" position to improve fuel economy. For powerful acceleration, use the "PWR" position. In the "PWR" position, the "PWR" position indicator light in the instrument panel is on and the transmission is shifted up and down at a higher vehicle speed than in the "NORM" position.

3. Push the overdrive switch to set it on.

Always turn the overdrive switch on for better fuel economy and quieter driving. (See "(b) Using engine braking" and "(f) Good driving practice" for exceptions).

4. With your foot holding down the brake pedal, shift the selector lever to "D".

CAUTION:
Never put your foot on the accelerator pedal while shifting.

5. Release the parking brake and brake pedal. Depress the accelerator pedal slowly for smooth starting.

The vehicle will start in the first gear and automatically shift to the second, third and overdrive gears according to the vehicle speed. However, while the engine coolant temperature is low and the vehicle is travelling at low speed, the transmission will not be shifted into the overdrive gear even with the overdrive switch on.

In "D" range, the automatic transmission system will select the most suitable gear for the running conditions such as hill climbing, hard towing, etc.

If you need to accelerate rapidly while driving, push the accelerator pedal all the way to the floor. The transmission will automatically downshift to the third, second or first gear, according to the vehicle speed.

If engine braking is needed, such as in descending a long hill, see "(b) Using engine braking."

(b) Using engine braking

To use the braking power of the engine, downshift the transmission in the way described below:

- Turn off the overdrive switch. (This is effective only when you are driving in the "D" range). The "O/D OFF" indicator light will come on and the transmission will downshift to the third gear.
- Shift into the "2" range. The transmission will downshift to the second gear when the vehicle speed is or becomes lower than the speed listed below and more powerful engine braking will be obtained.
- Shift into the "L" range. The transmission will downshift to the first gear when the vehicle speed is or becomes lower than the speed listed below and maximum engine braking will be applied.

5S-FE engine

"2" .... 98 km/h
"L" .... 54 km/h

3VZ-FE engine

"2" .... 99 km/h
"L" .... 54 km/h

CAUTION:

Be careful when downshifting on a slippery surface. Abrupt shifting could cause the vehicle to spin or skid .

(c) Using the "2" and "L" ranges

The "2" and "L" ranges are used for strong engine braking as described previously.

With the selector lever in "2" or "L", you can start the vehicle in motion as with the lever in "D".

With the selector lever in "2", the vehicle will start in the first gear and automatically shift to the second gear.

With the selector lever in "L", the transmission is engaged in the first gear.

NOTICE:

Be careful not to overrev the engine. The following maximum allowable speed (approximate) for each range is given for your reference:

5S-FE engine

"2"	98 km/h
"L"	54 km/h

3VZ-FE engine

"2"	99 km/h
"L"	54 km/h

Do not continue hill climbing or hard towing for a long time in the "2" or "L" range. This may cause severe automatic transmission damage from overheating. To prevent such damage, "D" range should be used in hill climbing or hard towing.

(d) Reversing

1. Bring the vehicle to a complete stop.

2. With the brake pedal held down with your foot, shift the selector lever to the "R" range.

NOTICE:

Never shift into reverse while the vehicle is in motion.

(e) Parking

1. Bring the vehicle to a complete stop.

2. Pull the parking brake lever up fully to securely apply the parking brake.

3. Hold the brake pedal down with your foot, shift the selector lever to the "P" range.

CAUTION:

While the vehicle is in motion, never attempt to move the selector lever into "P" under any circumstances. Serious mechanical damage and loss of vehicle control may result.

(f) Good driving practice

- If the transmission is repeatedly upshifted and downshifted between the third and overdrive gears when climbing a gentle slope, it is suggested that the overdrive switch be turned off. Be sure to turn the switch on immediately afterward.
- When towing a trailer, in order to maintain engine braking efficiency, do not use overdrive.

CAUTION:

Always keep your foot on the brake pedal while stopped with the engine running. This prevents the vehicle from creeping.

continued overleaf

NOTICE:

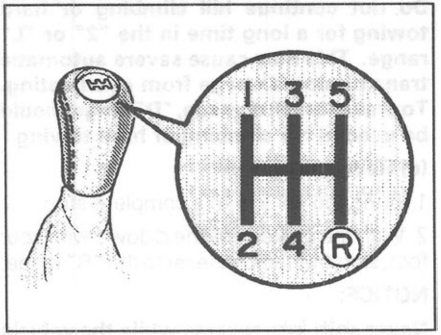
Do not hold the vehicle on an upgrade with the accelerator pedal. It can cause the transmission to overheat. Always use the brake pedal or parking brake.

(g) If the "O/D OFF" indicator light flashes

Contact your Holden dealer as soon as possible. There may be a problem in the transmission system.

Important: The maximum allowable speeds given in this section are those recommended by Holden. The maximum driving speed is governed by provincial and local law.

Manual transmission



The shift pattern is conventional as shown above.

Press the clutch pedal down fully while shifting and then release it slowly. Do not rest your foot on the pedal while driving as damage to the clutch may occur. Avoid using the clutch to hold the vehicle when stopped on an uphill grade - use the parking brake.

Recommended shifting speeds.

The transmission is fully synchronized and upshifting or downshifting is easy.

For the best compromise between fuel economy and vehicle performance, you should upshift or downshift at approximately the following speeds:

Upshifting

gear	km/h
1 to 2	24
2 to 3	40
3 to 4	65
4 to 5	72

Downshifting

gear	km/h
2 to 1	20
3 to 2	30
4 to 3	40
5 to 4	50

Upshifting too soon or downshifting too late will cause lugging and possibly pinging. Regularly revving the engine to maximum speed in each gear will cause excessive engine wear and high fuel consumption.

Maximum allowable speeds

To get on a highway or to pass slower traffic, maximum acceleration may be necessary. Make sure you observe the following maximum allowable speeds in each gear:

5S-FE engine

gear	km/h
1	46
2	74
3	114
4	147

NOTICE:

Do not downshift if you are going faster than the maximum allowable speed for the next lower gear.

Good driving practice

- If it is difficult to shift into reverse, put the transmission in neutral, release the clutch pedal momentarily and then try again.
- When towing a trailer, in order to maintain engine braking efficiency, do not use the fifth gear.

CAUTION:

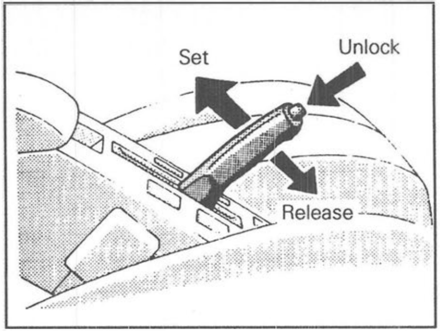
Be careful when downshifting on a slippery surface. Abrupt shifting could cause the vehicle to spin or skid.

NOTICE:

Make sure the vehicle is completely stopped before shifting into reverse.

Important: The maximum allowable speeds given in this section are those recommended by Holden. The maximum driving speed is governed by provincial and local law.

Parking brake



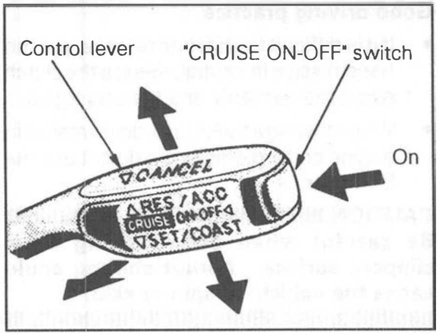
To set: Pull up the lever.

To release: Pull up slightly, press the thumb button, and lower.

Before leaving your vehicle, firmly apply the parking brake.

CAUTION:
Before driving, be sure the parking brake is fully released and the parking brake reminder light is off.

Cruise control (if fitted)



The cruise control allows you to cruise the vehicle at a desired speed over 40 km/h even with your foot off the accelerator pedal.

Your cruising speed can be maintained up or down grades within the limits of engine performance, although a slight speed change may occur when driving up or down some grades. On steeper grades, a greater speed change will occur so it is better to drive without the cruise control.

CAUTION:
To help maintain maximum control of your vehicle, do not use the cruise control when driving in heavy or varying traffic, on slippery (rainy, icy or snow-covered) roads, winding roads or when towing.

TURNING ON THE SYSTEM

To operate the cruise control, push the "CRUISE ON-OFF" switch. This turns the system on. The indicator light in the instrument panel shows that you can now set the vehicle at a desired cruising speed. Another push will turn the system completely off.

CAUTION:
To avoid accidental cruise control engagement, keep the "CRUISE ON-OFF" switch off when not using the cruise control.

SETTING AT A DESIRED SPEED

Bring the vehicle to a desired speed, move lever downward in the "SET /COAST" direction and release it. This sets the vehicle at that speed. Now you may take your foot off the accelerator pedal. If you need acceleration, for example, when passing, depress the accelerator pedal enough for the vehicle to exceed the set speed. When you release it, the vehicle will return to the speed set prior to the acceleration.

CANCELLING THE PRESET SPEED

You can cancel the preset speed by:

a. moving the control lever in the "CANCEL" direction (pull towards the driver) and releasing it.

b. depressing the brake pedal.

c. placing the automatic transmission selector lever in "N".

If the vehicle speed falls below 40 km/h, the preset speed will automatically cancel out.

If the vehicle speed drops 16 km/h below the preset speed, the preset speed will also automatically cancel out.

If the preset speed automatically cancels out other than for the above cases or, if the indicator light flashes several times, the cruise control may be malfunctioning. In such cases, have vehicle checked by your Holden dealer at the earliest opportunity.

RESETTING AT A FASTER SPEED

Move the control lever upward in the "RES/ACC" direction and hold it. Release the lever when the desired speed is attained. While the lever is held upward, the vehicle will gradually gain speed.

However, a faster way to reset is to accelerate the vehicle and then move the control lever downward in the "SET/COAST" direction.

RESETTING AT A SLOWER SPEED

Move the control lever downward in the SET/COAST" direction and hold it. Release the lever when the desired speed is attained. While the lever is held downward, the vehicle speed will gradually decrease.

However, a faster way to reset is to depress the brake pedal and then move the control lever downward in the "SET/COAST" direction.

RESUMING THE PRESET SPEED

Move the control lever upward in the "RES/ACC" direction. The vehicle will resume the speed set prior to cancellation unless the vehicle slows down to less than 40 km/h or to a speed 16 km/h below the preset speed.

OPERATION OF INSTRUMENTS AND CONTROLS

Audio, Heater and Air conditioning system

- Audio operating tips
- AM•FM radio and cassette player with clock - 4 speaker system
- AM•FM radio and cassette player - 6 speaker system
- Heater/air conditioner controls
- Vents

Audio operating tips

Radio

You can listen to the car audio when the ignition key is at "ON" or "ACC". However, if the engine is not running, the key must be in the "ACC" position.

Antenna

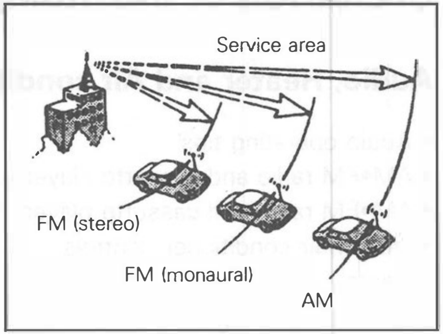
Adjust the length of your antenna for best reception. Usually a short length is best in large cities and a fully extended antenna is best for distant reception.

NOTICE:

To prevent damage to the antenna, make sure it is retracted before running your vehicle through an automatic car wash.

Radio reception

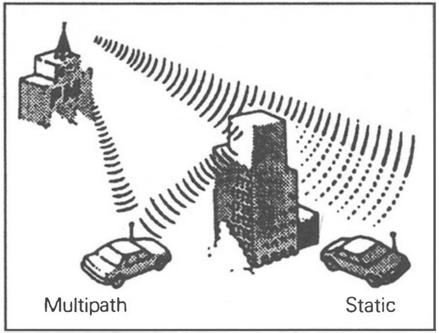
A vehicle is not an ideal place to listen to a radio. Because it moves, reception conditions are constantly changing. Buildings, terrain, signal distance and noise from other vehicles are all working against good reception. Some conditions of FM may appear to be problems when they are not. The following characteristics are completely normal for a given reception area and they do not indicate any problem with the radio itself.



- **Fading and Drifting:** FM range is limited to about 40 kilometres, except for some high power stations.

  If a vehicle is moving away from the desired station's transmitter, the signal will tend to fade and/or drift. This is a more remarkable phenomenon than with AM and is accompanied by distortion.

  Fading and drifting can be minimized to a certain degree by careful attention to fine tuning, or you should retune the radio to a stronger signal.



- **Static and Fluttering:** When the line-of-sight link between a transmitter and vehicle is blocked by large buildings or the like, the radio sound may be accompanied with static or fluttering because of the characteristic of FM. In a similar effect, a fluttering noise is sometimes heard when driving along a tree-lined road.

  This static and fluttering can be reduced by adjusting the tone control for greater bass response until the disturbance has passed.

- **Multipath:** Because of the reflecting characteristics of FM, direct and reflected signals may reach the antenna at the same time (multipath) and cancel each other out. As a vehicle moves through these electronic dead spots, the listener may hear a momentary flutter or loss of reception.
- **Station swapping:** When two FM stations are close to each other and an electronic dead spot, such as static or multipath area, interrupts the original signal, sometimes the stronger second signal will be selected automatically until the original one returns. This swapping can also occur as you drive away from the selected station and approach another station of a stronger signal.

Cassette tape player

Use only cassette tapes of good quality, having no damage. Avoid using tapes with a total playing time longer than 90 minutes.

Using damaged tapes may cause the tape player to malfunction. Longer tapes are not recommended because of their thinness.

Be sure that the tape is not slack and that the label is firmly stuck on the case before insertion.

Have the tape firmly wound around the tape spools by turning the spools with a pencil or the like.

Be careful not to touch the exposed tape surface.

When not in use, take the cassette out of the player, put it back into its case and store it away from dust, magnets and direct sunlight.

Leaving the cassettes on the dashboard in the sun could result in damaged tapes.

continued overleaf

Keep the playback head, capstan and pinch roller clean.

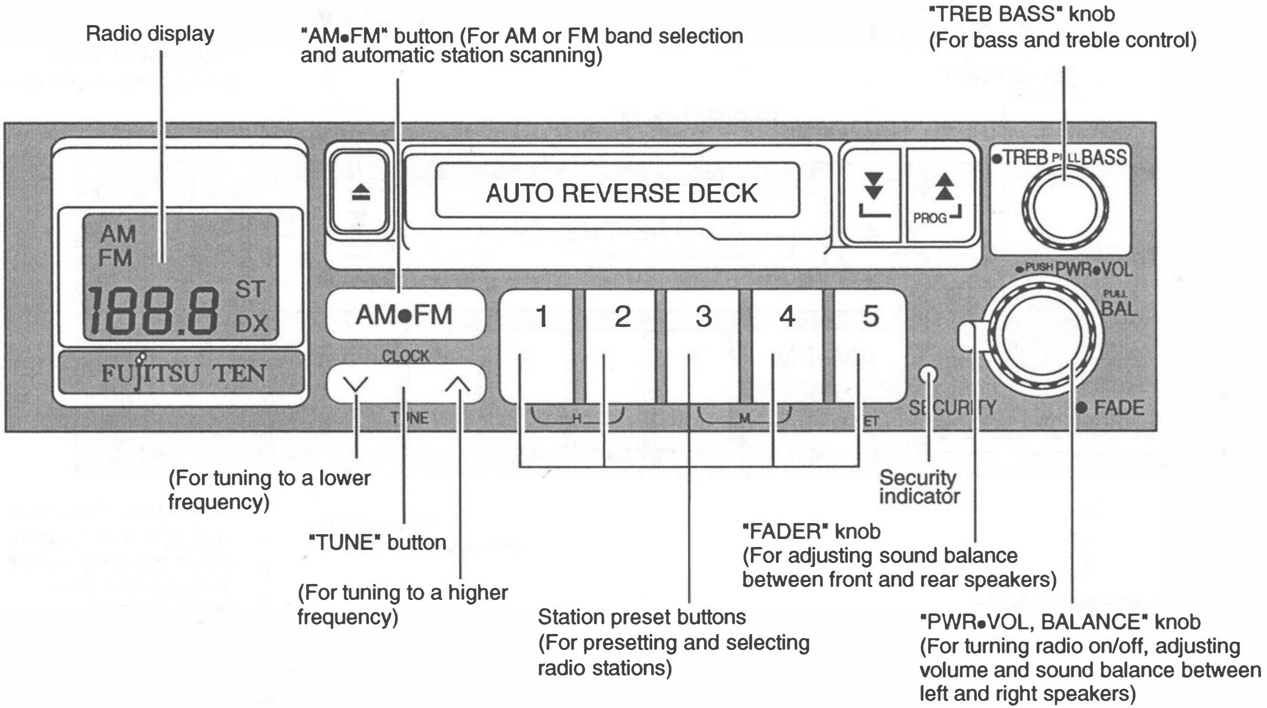
Remove tape coating residue accumulated on the head, capstan and pinch roller once or twice a month. Use a special head cleaning cassette, available from most cassette retailers.

NOTICE:

Do not oil any part of the tape player and do not insert metal objects or a magnet into the slot, as you may damage the tape player.

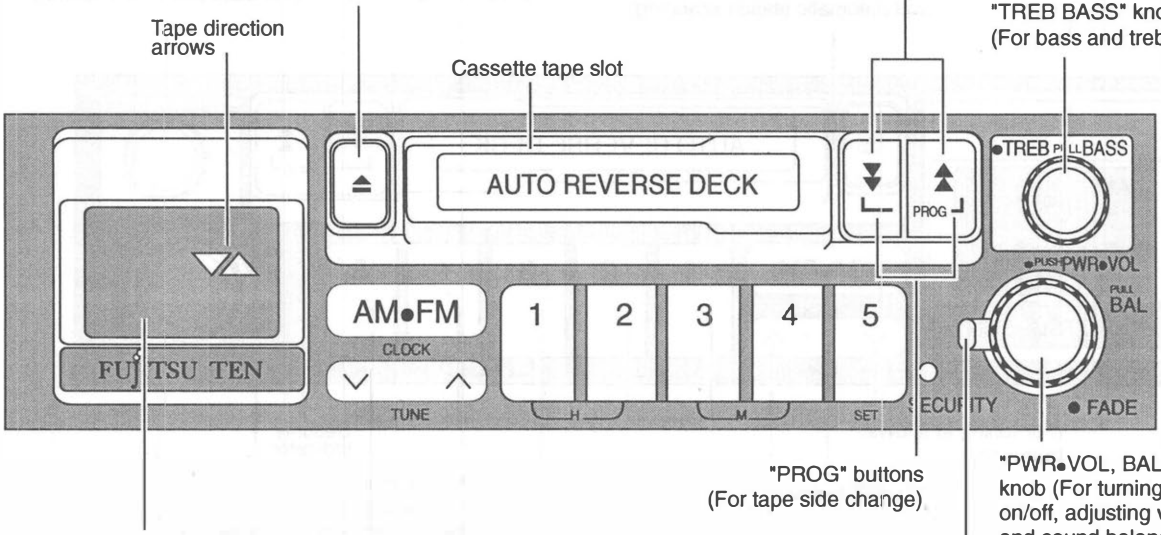
AM•FM radio and cassette player with clock - 4 speaker system

Radio


Radio display
"AM•FM" button (For AM or FM band selection and automatic station scanning)
"TREB BASS" knob (For bass and treble control)
AM
FM
188.8
ST
DX
FUJITSU TEN
AUTO REVERSE DECK
PROG
•TREB PULL BASS
•PUSH PWR•VOL
PULL BAL
AM•FM
CLOCK
TUNE
1
2
3
4
5
H
M
SET
SECURITY
• FADE
(For tuning to a lower frequency)
"TUNE" button
(For tuning to a higher frequency)
Station preset buttons (For presetting and selecting radio stations)
Security indicator
"FADER" knob (For adjusting sound balance between front and rear speakers)
"PWR•VOL, BALANCE" knob (For turning radio on/off, adjusting volume and sound balance between left and right speakers)

AM•FM radio and cassette player with clock - 4 speaker system

Cassette player


"EJECT" button (For stop and eject)
Fast forward and rewind buttons
"TREB BASS" knob
(For bass and treble control)
Tape direction arrows
Cassette tape slot
AUTO REVERSE DECK
TREB PULL BASS
PROG
PUSH PWR•VOL
PULL BAL
AM•FM
CLOCK
TUNE
1
2
3
4
5
H
M
SET
SECURITY
FADE
FUJITSU TEN
"PROG" buttons
(For tape side change)
"PWR•VOL, BALANCE" knob (For turning radio on/off, adjusting volume and sound balance between left and right speakers)
Cassette player display
"FADER" knob
(For adjusting sound balance between front and rear speakers)

AM•FM radio and cassette player with clock - 4 speaker system

The following outlines radio, cassette player and clock operating instructions. For cassette player operating instructions, see "Listening to the cassette tape", page 1-62 and "Clock reset procedure", page 1-63.

Listening to the radio

1. Push the "PWR•VOL" knob to turn the radio on.

2. Turn the "PWR•VOL" knob to adjust the volume.

3. Tune into the desired station. (See "Selecting a station" this page and "Presetting a station", page 1-62.)

The radio will change automatically to stereo reception when a FM stereo broadcast is being received. At the same time, the stereo indicator "ST" will appear on the display.

4. Adjust the tone and sound balance. (See "Adjusting the tone" and "Adjusting the sound balance", page 1-62)

5. To turn the radio off, push the "PWR•VOL" knob.

Radio display

The clock will display unless a station or AM•FM band is being selected, at which time the station frequency will display. When selection is complete, the clock will resume display. To confirm which station is being received, press the AM•FM button for 2 seconds or more until a beep sounds, and the frequency will be displayed for approximately 5 seconds.

Selecting a station

1. Select the desired AM•FM band by pressing the "AM•FM" button. The display will indicate the band selected.

2. Tune in to the desired station using one of the following methods. The selected frequency will appear on the display.

(a) Preset tuning: Use for tuning in to a desired preset station. (See "Presetting a station", page 1-62.)

Push the station preset button which has been preset to the desired station. The radio will tune in to the selected station and at the same time the button number and frequency will appear on the display.

(b) Seek tuning: Use for automatic station search and stop.

Press the " ∨ " side of the "TUNE" button for 0.5 of a second or more, until a beep sounds. The radio will begin seeking down for a station of the nearest frequency and stop on reception. To select the next lowest frequency, press the button again.

Press the " ∧ " side of the "TUNE" button for 0.5 of a second or more, until a beep sounds. The radio will begin seeking up for a station of the nearest frequency and stop on reception. To select the next highest frequency, press the button again.

If the radio cannot seek out any stations in one pass because receiver signals are too weak, the radio will begin seeking again with sensitivity boosted for searching out weak stations. At this time, "DX" will appear on the display.

(c) Manual tuning: Press the " ∨ " side of the "TUNE" button with a series of short presses. This enables you to manually seek the next lowest frequency.

Press the " ∧ " side of the "TUNE" button with a series of short presses. This enables you to manually seek the next highest frequency.

continued overleaf

Presetting a station

1. Tune into the desired station. (See "Selecting a station", page 61.)

2. Push one of the station preset buttons and hold it until a beep sounds. This sets the station to the button and the button number will appear on the display.

Each button can store one AM station and one FM station into memory. After presetting, just press the button to receive the station. To change the preset button to a different station, follow the same procedure.

Note: If the electrical power source (e.g., battery, fuse, etc.) is disconnected, all memories stored in the preset buttons will be cancelled. In such a case, repeat steps 1 and 2 to restore preset stations.

Adjusting the tone

Tone is adjusted by the following controls.

(a) Bass control

Pull out the "TREB BASS" knob and turn. From the pulled out position, turn the knob clockwise to increase the bass level, turn the knob counter clockwise to decrease the bass level.

(b) Treble control

Turn the "TREB BASS" knob to adjust the treble control. Turning the knob clockwise will increase the treble level, turn the knob counter clockwise to decrease the treble level.

Adjusting the sound balance

(a) Balance control

To balance the sound between the left and right speakers, pull out the "PWR•VOL" knob and turn.

(b) Fader control

To balance the sound between the front and rear speakers, turn the "FADER" knob. Turning the knob clockwise will increase sound level at the front, turning the knob counter clockwise will increase sound level at the rear.

Listening to the cassette tape

1. Insert the cassette into the slot, with the tape side to the right, and lightly push it in. The cassette player will accept the cassette and automatically load the tape to play. The tape will begin to play, regardless of "PWR•VOL" knob position. If the radio is on when inserting the cassette, the radio will automatically turn off.

2. Turn the "PWR•VOL" knob to adjust the volume.

3. Select your program. (See "Selecting a program", page 1-63.)

4. Adjust the tone and sound balance. (See "Adjusting the tone" and "Adjusting the sound balance", this page.)

5. To turn the player off, push the "⏏" button and the cassette will automatically eject. As this is done, the player will turn off and if the radio was on when the cassette was inserted, the radio will automatically turn on again.

Selecting a program

1. Push the "PROG" buttons simultaneously to change tape direction and the playing side. The tape direction indicators on the display will indicate tape direction.

The player will automatically reverse directions at the end of the tape to play the other side.

2. Select the desired program using either of the following methods.

(a) Fast forward

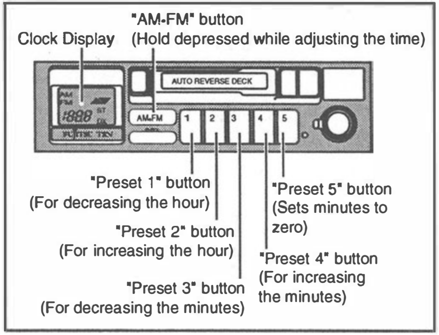
Press in the button which indicates the same direction as the displayed "Tape direction indicator". When the end of the tape is reached, fast forward is cancelled and tape play resumes.

To stop fast forword, lightly push the other button. Tape play will resume.

(b) Rewind

Press in the button which indicates the opposite direction as the displayed "Tape direction indicator". When the end of the tape is reached, fast forward is cancelled and tape play resumes.

To stop fast forword, lightly push the other button. Tape play will resume.


"AM•FM" button
Clock Display
(Hold depressed while adjusting the time)
AUTO REVERSE DECK
AM.FM
1
2
3
4
5
"Preset 1" button
(For decreasing the hour)
"Preset 2" button
(For increasing the hour)
"Preset 3" button
(For decreasing the minutes)
"Preset 5" button
(Sets minutes to zero)
"Preset 4" button
(For increasing the minutes)

Clock reset procedure

The clock indicates time with the ignition key at the "ACC" or "ON" position only.

To reset the time, first press the "AM•FM" button and hold depressed while resetting the hour and minutes with the "Preset" buttons.

Reset the time as follows.

(a) Resetting the hour

With the "AM•FM" button depressed, press the "Preset 1" button to decrease the hour, or press the "Preset 2" button to increase the hour. The display will indicate the desired selection.

(b) Resetting minutes

With the "AM•FM" button depressed, press the "Preset 3" button to decrease the minutes, or press the "Preset 4" button to increase the minutes. The display will indicate the desired selection.

(c) Resetting minutes to zero

With the "AM•FM" button depressed, press the "Preset 5" button and the minutes will return to zero (:00).

Note: The time changes in steps by each press of the "Preset" buttons. Holding the buttons depressed will change the time continuously.

continued overleaf

Anti-theft system

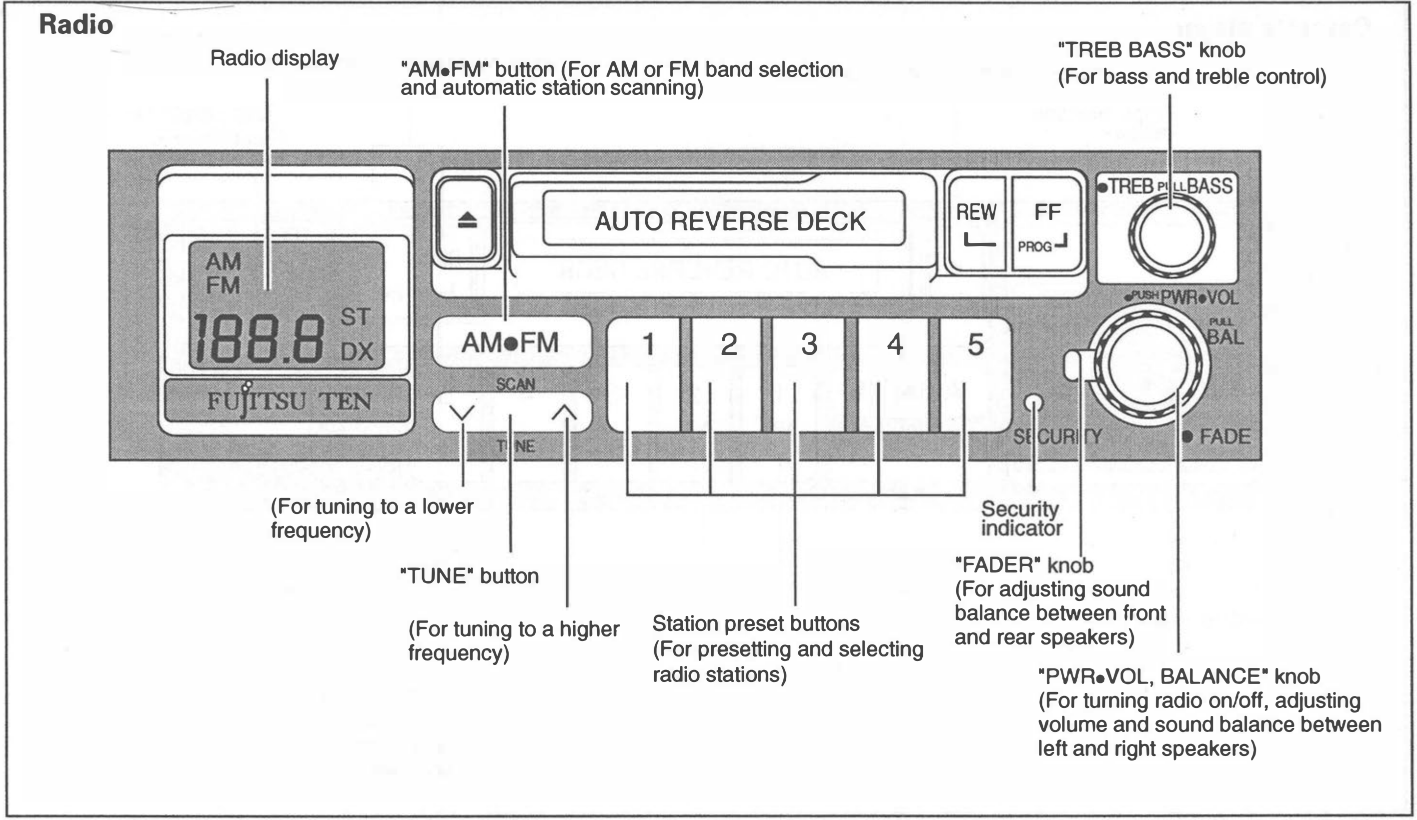
To deter theft of your audio unit the system is designed so that the unit becomes inoperable if it is stolen from the vehicle.

The system will be activated if the electrical power source is ever disconnected from the radio unit. When the system is activated, the audio system cannot be turned on even after the power supply is reconnected and "SEC" appears on the display. If this happens, such as when the battery is discharged, see, "If the anti-theft system is activated", Page 1-72.

For further information on the Anti-theft system, refer to page 1-70

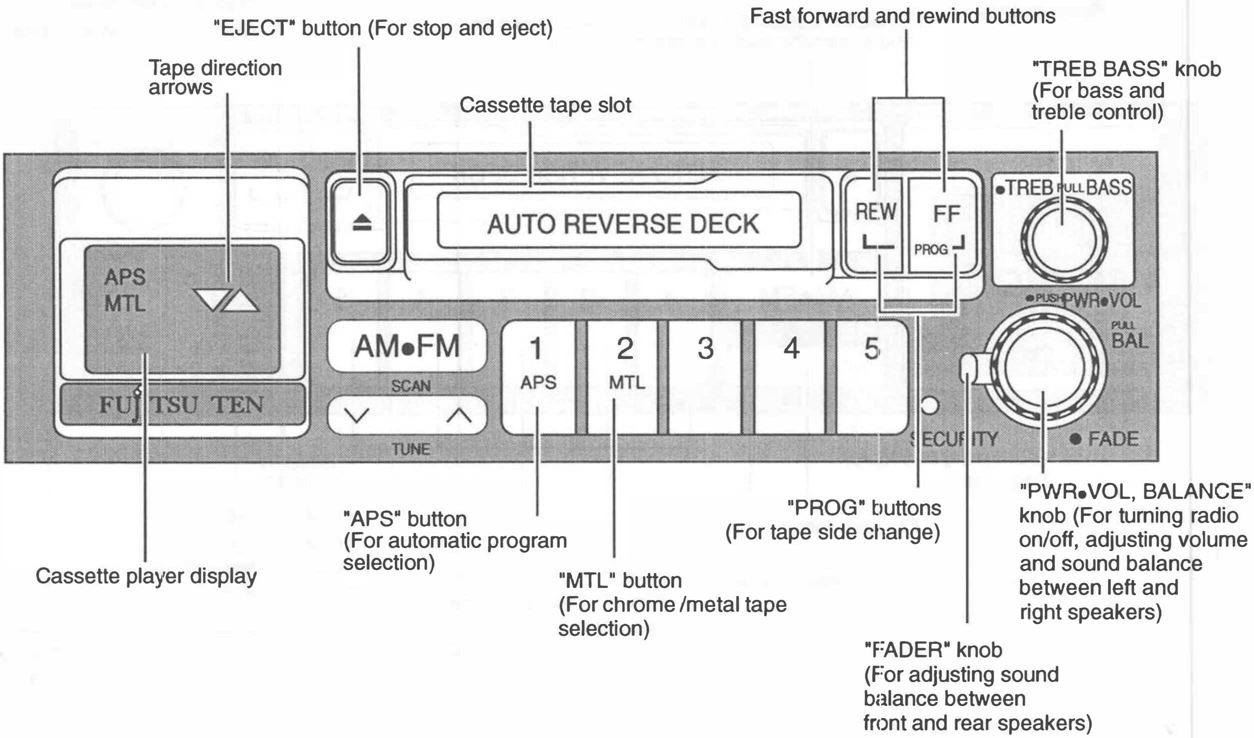
AM•FM radio and cassette player - 6 speaker system

Radio


Radio display
"AM•FM" button (For AM or FM band selection and automatic station scanning)
"TREB BASS" knob
(For bass and treble control)
AM
FM
188.8
ST
DX
FUJITSU TEN
AUTO REVERSE DECK
REW
FF
PROG
TREB PULL BASS
PUSH PWR•VOL
PULL
BAL
AM•FM
SCAN
TUNE
1
2
3
4
5
SECURITY
FADE
(For tuning to a lower frequency)
"TUNE" button
(For tuning to a higher frequency)
Station preset buttons
(For presetting and selecting radio stations)
Security indicator
"FADER" knob
(For adjusting sound balance between front and rear speakers)
"PWR•VOL, BALANCE" knob
(For turning radio on/off, adjusting volume and sound balance between left and right speakers)

AM•FM radio and cassette player - 6 speaker system

Cassette player


"EJECT" button (For stop and eject)
Fast forward and rewind buttons
Tape direction arrows
"TREB BASS" knob (For bass and treble control)
Cassette tape slot
AUTO REVERSE DECK
REW
FF
PROG
•TREB PULL BASS
•PUSH PWR•VOL
PULL BAL
APS
MTL
AM•FM
SCAN
TUNE
1
APS
2
MTL
3
4
5
SECURITY
● FADE
FUJITSU TEN
"PWR•VOL, BALANCE" knob (For turning radio on/off, adjusting volume and sound balance between left and right speakers)
"PROG" buttons (For tape side change)
"APS" button (For automatic program selection)
Cassette player display
"MTL" button (For chrome /metal tape selection)
"FADER" knob (For adjusting sound balance between front and rear speakers)

AM•FM radio and cassette player - 6 speaker system

The following outlines radio and cassette player operating instructions. For cassette player operating instructions, see "Listening to the cassette tape", page 1-68.

Listening to the radio

1. Push the "PWR•VOL" knob to turn the radio on.

2. Turn the "PWR•VOL" knob to adjust the volume.

3. Tune in to the desired station. (See "Selecting a station" this page and "Presetting a station", page 1-68.)

The radio will change automatically to stereo reception when a FM stereo broadcast is being received. At the same time, the stereo indicator "ST" will appear on the display.

4. Adjust the tone and sound balance. (See "Adjusting the tone" and "Adjusting the sound balance", page 1-68)

5. To turn the radio off, push the "PWR•VOL" knob.

Selecting a station

1. Select the desired AM•FM band by pressing the "AM•FM" button. The display will indicate the band selected.

2. Tune in to the desired station using one of the following methods. The selected frequency will appear on the display.

(a) Preset tuning: Use for tuning in to a desired preset station. (See "Presetting a station", page 1-68.)

Push the station preset button which has been preset to the desired station. The radio will tune in to the selected station and at the same time the button number and frequency will appear on the display.

(b) Seek tuning: Use for automatic station search and stop.

Press the " ∨ " side of the "TUNE" button for 0.5 of a second or more, until a beep sounds. The radio will begin seeking down for a station of the nearest frequency and stop on reception. To select the next lowest frequency, press the button again.

Press the " ∧ " side of the "TUNE" button for 0.5 of a second or more, until a beep sounds. The radio will begin seeking up for a station of the nearest frequency and stop on reception. To select the next highest frequency, press the button again.

(c) Manual tuning: Press the " ∨ " side of the "TUNE" button with a series of short presses. This enables you to manually seek the next lowest frequency.

Press the " ∧ " side of the "TUNE" button with a series of short presses. This enables you to manually seek the next highest frequency.

Scan

Selecting "SCAN" mode enables one station after the other to be received in a sequence upwards for approximately 5 seconds.

To scan, press the "SCAN" button. At this time "SCAN" will appear on the display. When the desired station is reached, press the "SCAN" button once again and scan will stop on that station.

If selecting a station with any of the previously described methods, and the radio cannot seek out any stations in one pass because receiver signals are too weak, the radio will begin seeking again with sensitivity boosted for searching out weak stations. At this time, "DX" will appear on the display.

continued overleaf

Presetting a station

1. Tune into the desired station. (See "Selecting a station", page 1-67.)

2. Push one of the station preset buttons and hold it until a beep sounds. This sets the station to the button and the button number will appear on the display.

Each button can store one AM station and one FM station into memory. After presetting, just press the button to receive the station. To change the preset button to a different station, follow the same procedure.

Note: If the electrical power source (e.g., battery, fuse, etc.) is disconnected, all memories stored in the preset buttons will be cancelled. In such a case, repeat steps 1 and 2 to restore preset stations.

Adjusting the tone

Tone is adjusted by the following controls.

(a) Bass control

Pull out the "TREB BASS" knob and turn. From the pulled out position, turn the knob clockwise to increase the bass level, turn the knob counter clockwise to decrease the bass level.

(b) Treble control

Turn the "TREB BASS" knob to adjust the treble control. Turning the knob clockwise will increase the treble level, turn the knob counter clockwise to decrease the treble level.

Adjusting the sound balance

(a) Balance control

To balance the sound between the left and right speakers, pull out the "PWR•VOL" knob and turn.

(b) Fader control

To balance the sound between the front and rear speakers, turn the "FADER" knob. Turning the knob clockwise will increase sound level at the front, turning the knob counter clockwise will increase sound level at the rear.

Listening to the cassette tape

1. Insert the cassette into the slot, with the tape side to the right, and lightly push it in. The cassette player will accept the cassette and automatically load the tape to play.

The tape will begin to play, regardless of "PWR•VOL" knob position. If the radio is on when inserting the cassette, the radio will automatically turn off.

2. When a metal or chrome equivalent tape is inserted, the player will automatically adapt and "METAL" will appear on the display.

3. Turn the "PWR•VOL" knob to adjust the volume.

4. Select your program. (See "Selecting a program", page 1-69.)

5. Adjust the tone and sound balance. (See "Adjusting the tone" and "Adjusting the sound balance", this page.)

6. To turn the player off, push the "⏏" button and the cassette will automatically eject. As this is done, the player will turn off and if the radio was on when the cassette was inserted, the radio will automatically turn on again.

Selecting a program

1. Push the "PROG" buttons simultaneously to change tape direction and the playing side. The tape direction indicators on the display will indicate tape direction.

The player will automatically reverse directions at the end of the tape to play the other side.

2. Select the desired program using either of the following methods.

(a) Manual program selection

Press the "FF" or "REW" buttons to either fast forward or rewind the tape. When fast forwarding or rewinding, the tape direction arrows on the display indicate tape direction. To stop fast forward or rewind, push the other button lightly.

During fast forward and rewind, the radio will play.

(b) Automatic program selection

Use for quick access to a desired program.

1. Press the "APS" button. At this time, "APS" will appear on the display.

2. To select the next program on, press the "FF" button. The player will automatically stop at the beginning of the next program and resume play.

To select the next program back, press the "REW" button. The player will automatically stop at the beginning of the next program back and resume play.

During automatic program selection, the radio will play while a program is being searched.

When the tape comes to an end during automatic program selection, normal play mode will resume.

Note: Automatic program selection may not work properly if the blank portions between programs are less than 3 seconds duration.

1. If blank portions between programs are less than 3 seconds duration.

2. A tape which has programs recorded with a low sound level.

3. A tape which has programs with an unclear begining or ending.

continued overleaf

Anti-theft system

To deter theft of your audio unit the system is designed so that the unit becomes inoperable if it is stolen from the vehicle.

This system is not preset at the factory. You must input a three digit identification number decided by you.

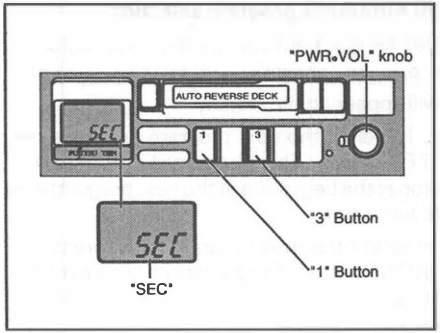
NOTICE:

If you push wrong buttons on the anti-theft system, the following message will appear on the display.

- **"ER" - You have pushed wrong buttons.**
- **"1-4" - Indicates the number of errors you have made. You may make up to 4 errors, but no more.**

If the display turns off and the security indicator remains lit, the number of errors you can make was exceeded. The audio system is completely inoperable.

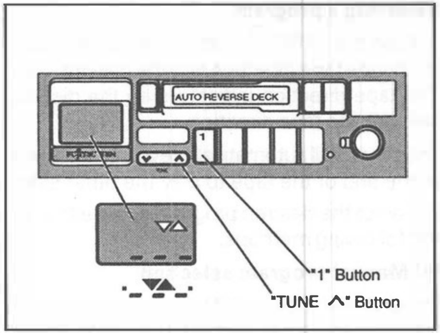
Under these circumstances, take the vehicle with the activated anti-theft system to your Holden dealer to reactivate the audio system. Be warned that rectification may involve removal of the audio, for which you may be charged.



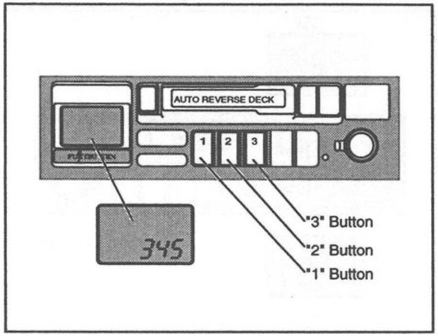
Setting the anti-theft system

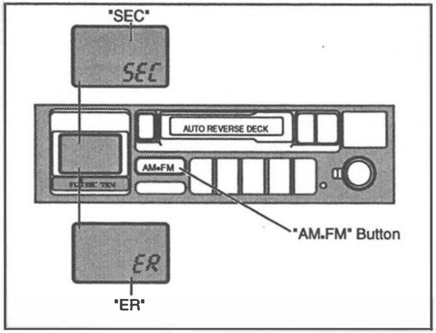
1. Make sure that the radio is turned off with the ignition switch in "ACC".

2. While holding the "1" and "3" buttons in, push and hold the "PWR•VOL" knob in until "SEC" appears on the display.



3. Press the "1" button while holding the "TUNE ∧ " button in. At this time the tape operation indicator "–▼▲–" will appear on the display.





4. Input your identification number by pressing the "1", "2" and "3" buttons repeatedly. Use the "1" button for the first digit, the "2" button for the second digit and the "3" for the last digit. For example, if your number is 345, press the "1" button 4 times, the "2" button 5 times and the "3" button 6 times. If the display returns to "- -▲▼", try inputting the number again.

We recommended that your number be associated with something easy to remember. In case you are unsure of the number, write it in a notebook you normally carry. Do not leave it in your vehicle.

5. With your identification number appearing on the display, press the "AM•FM" button and hold it until "SEC" appears on the display. "SEC" will go off to indicate the system is set. If invalid buttons have been used, "Er" will appear on the display before "SEC" appears. Try again from step 3.

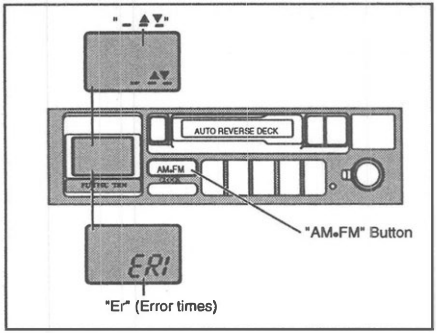
The figure displayed when "Er" appears indicates how many errors have been made. You may make up to four errors, but no more.

Once the system is set, the security indicator will flash with the key in the "LOCK" position and "SEC" will appear on the display each time the key is turned to the "ACC" position.

To change the identification number for some reason, cancel the system (see "Cancelling the anti-theft system", page 1-72) and set it again with a new number.

The system will be activated if the electrical power source is ever disconnected from the radio unit. When the system is activated, the audio system cannot be turned on even after the power supply is reconnected and "SEC" appears on the display. If this happens, such as when the battery is discharged, see "If the anti-theft system is activated", page 1-72.

continued overleaf



Cancelling the anti-theft system

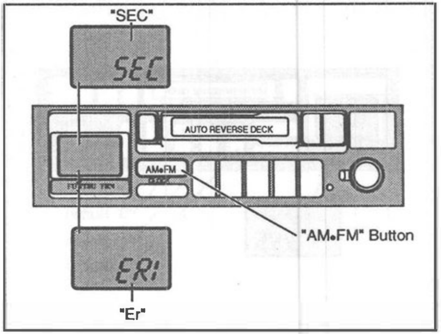
1. Follow steps 1 to 4 described in "Setting the anti-theft system".

2. With your identification number appearing on the display, press the "AM•FM" button and hold it until "– –▲▼" appears on the display. "– ▲▼" will go off to indicate the system is cancelled. If invalid buttons have been used, "Er" will appear on the display and "SEC" appears. Try again from step 3 in "Setting the anti-theft system".

The figure displayed when "Er" appears indicates how many errors have been made. You may make up to four errors, but no more.

If the anti-theft system is activated

If the anti-theft system is activated, such as when the electrical power source has been disconnected from the audio, the audio system made inoperable by the activated anti-theft system will be operable if the correct identification number is entered providing that the number of errors you can make has not been exceeded.

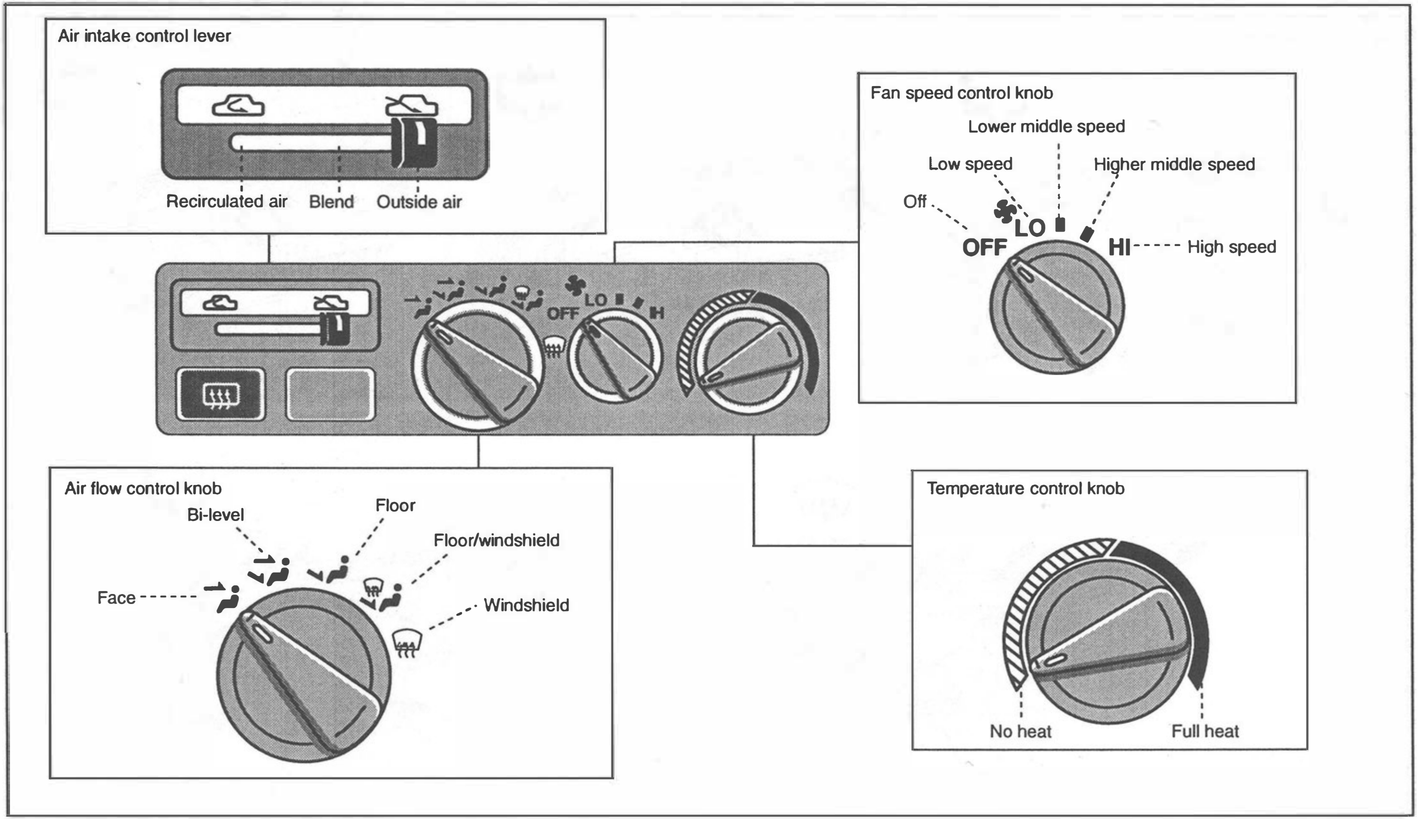


1. Follow steps 3 and 4 described in "Setting the anti-theft system".

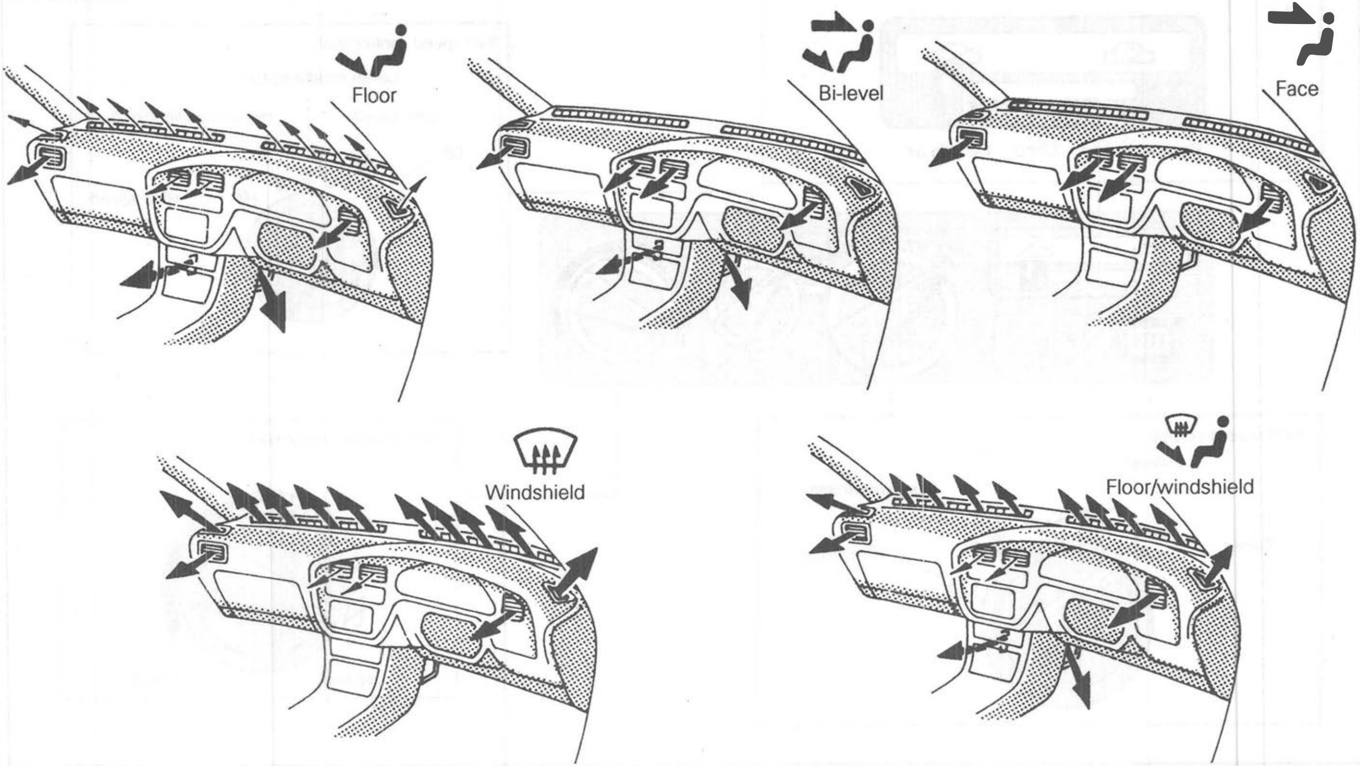
2. With your identification number appearing on the display, press the "AM•FM" button and hold it until "SEC" appears on the display. "SEC" will go off to indicate that the system is reset and operable. If invalid buttons have been used, "Er" will appear on the display before "SEC" appears. If this occurs, try again from the beginning.

The figure displayed when "Er" appears indicates how many errors have been made. You may make up to four errors, but no more.

Heater controls


Air intake control lever
Recirculated air
Blend
Outside air
Fan speed control knob
Lower middle speed
Low speed
Higher middle speed
Off
LO
OFF
HI
High speed
Air flow control knob
Bi-level
Floor
Floor/windshield
Face
Windshield
Temperature control knob
No heat
Full heat

Air flow selection


Floor
Bi-level
Face
Windshield
Floor/windshield

(a) Controls and functions

The temperature control knob is used to turn on and off the heater and adjust the temperature of the heated air.

Turn the knob toward the FULL HEATING position for higher temperature. Turning the knob to the NO HEAT position turns off the heater.

The air intake control lever is used to select intake air, either outside air or recirculated air.

With the lever in the OUTSIDE AIR position, the system will take fresh outside air into the unit. For recirculated air, move the lever to the RECIRCULATED AIR position. The BLEND position gives air blended from both.

The air flow control knob is used to select the outlets that air is delivered from.

See "(e) Air flow selection" for detailed information.

The fan speed control knob is used to turn on and off the fan and select the fan speed.

The higher the fan speed setting, the more air is delivered. Turning the knob to the "OFF" position turns off the fan.

(b) Heating

1. Turn the temperature control knob anywhere except the NO HEAT position.

If heated air is desired at face level, turn the knob to about the middle position.

2. Move the air intake control lever to the OUTSIDE AIR position.

If quick circulation of heated air is desired, move the lever to the BLEND or the RECIRCULATED AIR position.

For normal use, it is best to keep the lever in the OUTSIDE AIR position. Otherwise the windows will fog up more easily.

3. Turn the air flow control knob to the FLOOR position.

If heated air is desired at face level, turn the knob to the BI-LEVEL position.

If the windshield fogs up easily, turn the knob to the FLOOR/WINDSHIELD position.

For detailed information on air flow control including other settings, see "(e) Air flow selection".

4. Turn the fan speed control knob anywhere except the "OFF" position.

(c) Ventilation

1. Turn the temperature control knob to the NO HEAT position.

2. Move the air intake control lever to the OUTSIDE AIR position.

3. Turn the air flow control knob to the FACE position.

For detailed information on air flow control including other settings, see "(e) Air flow selection".

4. Turn the fan speed control knob anywhere except the "OFF" position.

(d) Windshield defogging and defrosting

1. Turn the temperature control knob to the FULL HEATING position.

2. Move the air intake control lever to the OUTSIDE AIR position.

3. Turn the air flow control knob to the WINDSHIELD position.

For detailed information on air flow control, see "(e) Air flow selection".

4. Turn the fan speed control knob to the "HI" position.

continued overleaf

(e) Air flow selection

FACE position - This position directs the air flow to face level.

BI-LEVEL position - This position directs the air flow to face level and the floor. Except in ventilation, the air to the floor is slightly warmer than that to face level.

FLOOR position - This position directs the air flow mostly to the floor and face level. During heating, heated air is delivered to the floor and unheated air is delivered to face level.

FLOOR/WINDSHIELD position - This position directs the air flow mostly to the windshield, front side windows and face level. During heating, heated air is delivered to the floor and windshield and unheated air is delivered to face level.

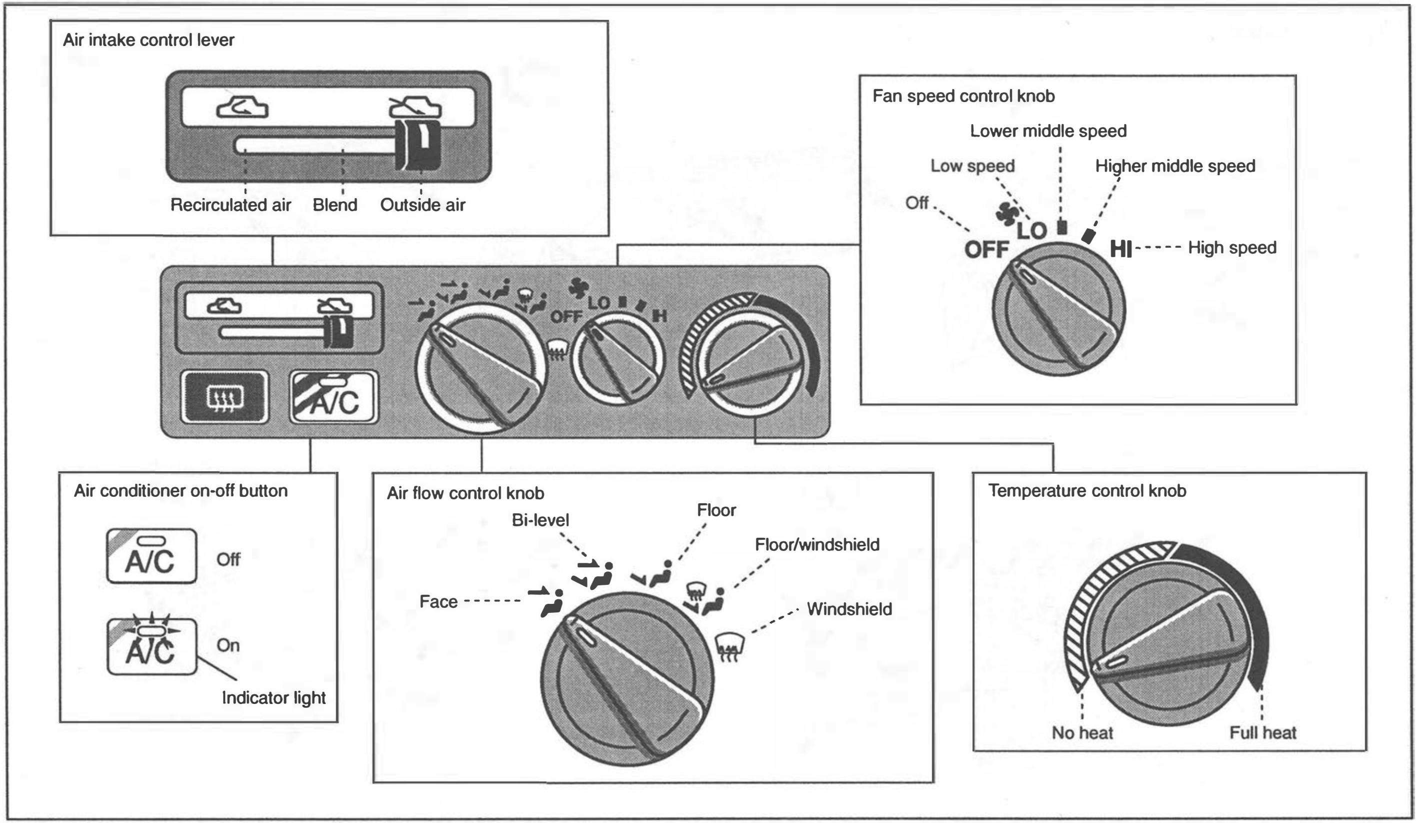
WINDSHIELD position - This position directs the air flow mostly to the windshield, front side windows and face level. During heating, heated air is delivered to the windshield and front side windows and unheated air is delivered to face level.

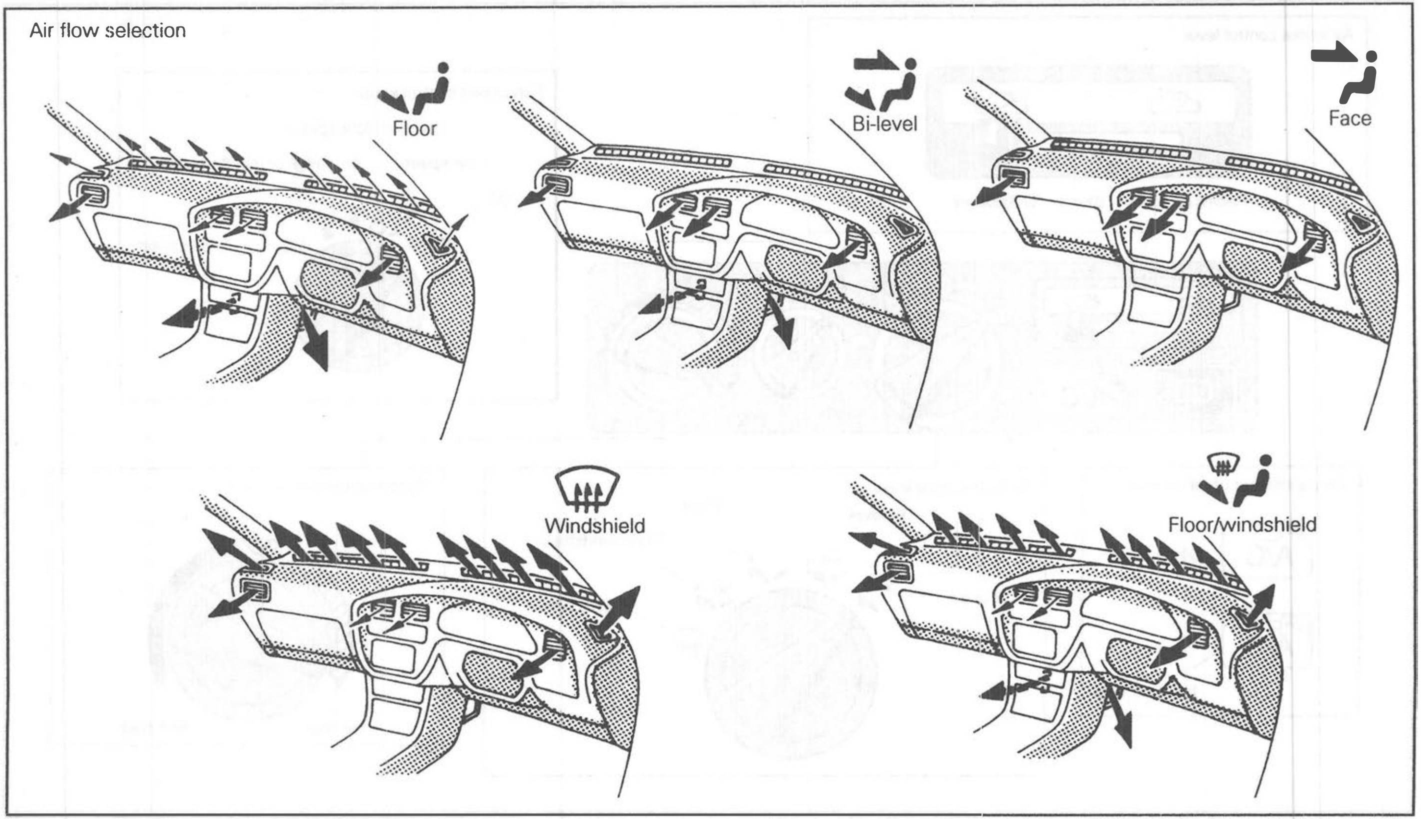
Do not use the WINDSHIELD position during cooling operation in extremely humid weather. The difference between the temperature of the outside air and that of the windshield could cause the outer surface of the windshield to fog up blocking your vision.

(f) Operating tips

- Be sure the air inlet grilles in front of the windshield are not blocked by leaves or other obstructions.
- If air flow control is not satisfactory, check the dashboardvents. (See "Vents" at end of this section).
- When driving on dusty roads, close all windows. If dust thrown up by the vehicle is still drawn into the vehicle after closing the windows, it is recommended that the air intake control lever be set to the OUTSIDE AIR position and the fan speed control knob placed anywhere except the "OFF" position.
- If following another vehicle on a dusty road, or driving in windy and dusty conditions, it is recommended that the air intake control lever be temporarily set to the RECIRCULATED AIR position, which will close off the outside passage and prevent outside air and dust from entering the vehicle interior.

Air conditioner controls


Air intake control lever
Recirculated air
Blend
Outside air
Fan speed control knob
Lower middle speed
Low speed
Higher middle speed
Off
LO
OFF
HI
High speed
Air conditioner on-off button
A/C
Off
A/C
On
Indicator light
Air flow control knob
Bi-level
Floor
Floor/windshield
Face
Windshield
Temperature control knob
No heat
Full heat



Air flow selection

Floor
Bi-level
Face
Windshield
Floor/windshield

(a) Controls and functions

The temperature control knob is used to adjust the temperature of the delivered air.

Turn the knob toward the HIGH position for higher temperature and toward the LOW position for lower temperature.

The air intake control lever is used to select intake air, either outside air or recirculated air.

With the lever in the OUTSIDE AIR position, the system will take fresh outside air into the unit. For recirculated air, move the lever to the RECIRCULATED AIR position. The BLEND position gives air blended from both.

The air flow control knob is used to select the outlets that air is delivered from.

See "(f) Air flow selection" for detailed information.

The fan speed control knob is used to turn on and off the fan and select the fan speed.

The higher the fan speed setting, the more air is delivered. Turning the knob to the "OFF" position turns off the fan.

The air conditioner on-off button is used to turn on and off the air conditioner.

With the button pressed in, the air conditioner turns on. Pressing the button once again will turn the air conditioner off.

If the indicator light flashes, contact your Holden dealer as soon as possible. There may be a slippage of the drive belt or a problem in the compressor. If this happens, the air conditioner is automatically turned off to protect the air conditioner system.

(b) Heating

1. Turn the temperature control knob anywhere except the LOW position.

When dehumidified heating is desired, turn the knob between the HIGH and middle positions.

If heated air is desired at face level, turn the knob around the middle.

2. Move the air intake control lever to the OUTSIDE AIR position.

If quick circulation of heated air is desired, move the lever to the BLEND or the RECIRCULATED AIR position.

For normal use, it is best to keep the lever in the OUTSIDE AIR position. Otherwise the windows will fog up more easily.

3. Turn the air flow control knob to the FLOOR position.

If heated air is desired at face level, turn the knob to the BI-LEVEL position.

continued overleaf

If the windshield fogs us easily, turn the knob to the FLOOR/WINDSHIELD position.

For detailed information on air flow control including other settings, see "(f) Air flow selection".

4. Turn the fan speed control knob anywhere except the "OFF" position.

5. If dehumidified heating is desired, press in the air conditioner on-off button.

(c) Cooling

1. Turn the temperature control knob anywhere between the middle and LOW positions.

If warmer air is desired at floor level for bi-level operation, turn the knob around the middle.

2. Move the air intake control lever to the OUTSIDE AIR position.

If quick circulation of cooled air is desired, move the lever to the BLEND or RECIRCULATED AIR position.

For normal use, it is best to keep the lever in the OUTSIDE AIR position.

3. Turn the air flow control knob to the FACE position.

If warmer air is desired at floor level for bi-level operation, turn the knob to the BI-LEVEL position.

For detailed information on air flow control including other settings, see "(f) Air flow selection".

4. Turn the fan speed control knob anywhere except the "OFF" position.

5. Press in the air conditioner on-off button.

(d) Ventilation

1. Turn the temperature control knob to the LOW position.

2. Move the air intake control lever to the OUTSIDE AIR position.

3. Turn the air flow control knob to the FACE position.

For detailed information on air flow control including other settings, see "(f) Air flow selection".

4. Turn the fan speed control knob anywhere except the "OFF" position.

5. Leave the air conditioner on-off button in the "OFF" position.

(e) Windshield defogging and defrosting

To remove interior fog on the windshield;

1. Turn the temperature control knob to any position.

2. Move the air intake control lever to the OUTSIDE AIR position.

3. Turn the air flow control knob to the WINDSHIELD position.

For detailed information on air flow control, see "(f) Air flow selection".

4. Turn the fan speed control knob anywhere except the "OFF" position.

5. Press in the air conditioner on-off button.

To remove frost or exterior fog on the windshield:

1. Turn the temperature control knob to the HIGH position.

2. Move the air intake control lever to the OUTSIDE AIR position.

3. Turn the air flow control knob to the WINDSHIELD position.

For detailed information on air flow control, see "(f) Air flow selection".

4. Turn the fan speed control knob to the "HI" position.

5. Leave the air conditioner on-off button in the "OFF" position.

(f) Air flow selection

FACE position - This position directs the air flow to face level.

BI-LEVEL position - This position directs the air flow to face level and the floor. Except in ventilation, the air to the floor is slightly warmer than that to the face level.

FLOOR position - This position directs the air mostly to the floor and face level. During heating, heated air is delivered to the floor and unheated air is delivered to face level.

FLOOR/WINDSHIELD position - This position directs the air flow to the windshield as well as the floor and face level. During heating, heated air is delivered to the floor and windshield and unheated air is delivered to face level.

WINDSHIELD position - This position directs the air flow mostly to the windshield and front side windows and face level. During heating, heated air is delivered to the windshield and front side windows and unheated air is delivered to face level.

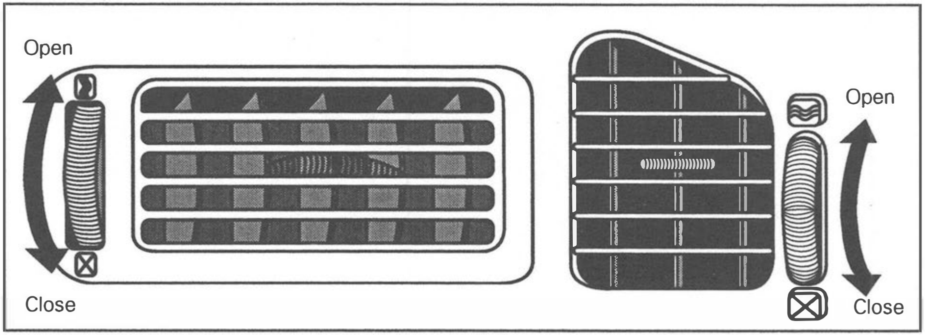
Do not use the WINDSHIELD button during cooling operation in extremely humid weather. The difference between the temperature of the outside air and that of the windshield could cause the outer surface of the windshield to fog up blocking your vision.

continued overleaf

(g) Operating tips

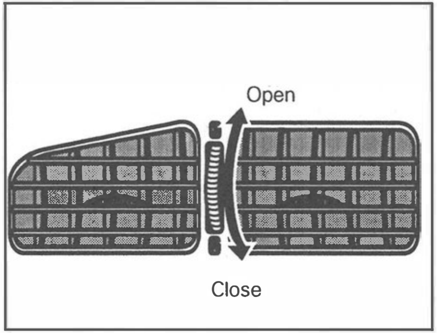
- Be sure the air inlet grilles in front of the windshield are not blocked by leaves or other obstructions.
- If air flow control is not satisfactory, check the dashboard vents. (See "Vents" at the end of this section).
- To help cool down the interior after parking in the hot sun, drive for the first few minutes with the windows open. After the excess heat has dissipated, close the windows.
- When driving on dusty roads, close all windows. If dust thrown up by the vehicle is still drawn into the vehicle after closing the windows, it is recommended that the air intake control lever be set to the OUTSIDE AIR position and the fan speed control knob placed anywhere except the "OFF" position.
- If following another vehicle on a dusty road, or driving in windy and dusty conditions, it is recommended that the air intake control lever be temporarily set to the RECIRCULATED AIR position, which will close off the outside passage and prevent outside air and dust from entering the vehicle interior.

Side vents


Open
Close
Open
Close

The side vents may be opened or closed as shown.

Centre vents



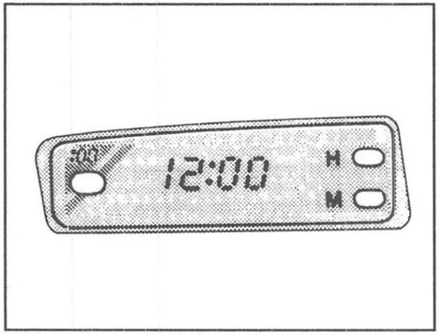
The centre vents may be opened or closed as shown.

OPERATION OF INSTRUMENTS AND CONTROLS

Other equipment

- Clock
- Cigarette lighter and ashtray
- Glovebox
- Roof luggage carrier
- Luggage cover

Clock (if fitted)



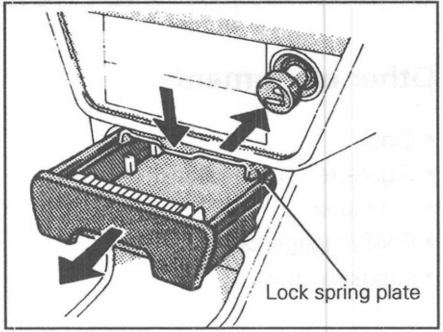
The digital clock indicates the time with the ignition key at the "ACC" or "ON" position. To reset the hour, depress the "H" button. To reset the minute, depress the "M" button. To adjust the time to a full hour, depress the "00" button.

For example, if the "00" button is depressed when the time is between 1.01 - 1:29, the time will change to 1:00. If the time is between 1:30 - 1:59, the time will change to 2:00.

When the instrument panel lights are turned on, the brightness of the time indication will be reduced.

Once the electrical power source has been disconnected from the clock, the time is automatically set to 1:00 (one o'clock).

Cigarette lighter and ashtray



To operate the cigarette lighter, press it in. When it becomes heated, it automatically pops out ready for use.

If the engine is not running, the key must be in the "ACC" position.

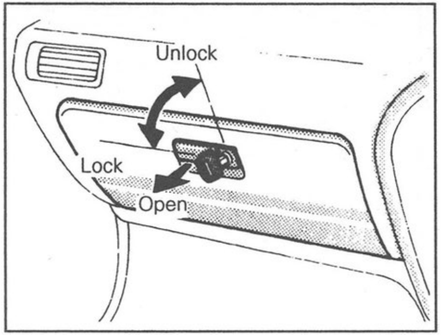
Do not hold the cigarette lighter pressed in.

When finished with your cigarette, thoroughly extinguish it in the ashtray to prevent other cigarette butts from catching fire. After using the ashtray, push it back in completely.

To remove the ashtray, press down on the lock spring plate and pull out.

Use a genuine Holden cigarette lighter or equivalent for replacement.

Glovebox



To open the glovebox door, pull the lever.

To lock the glovebox door, insert the master key and turn it clockwise.

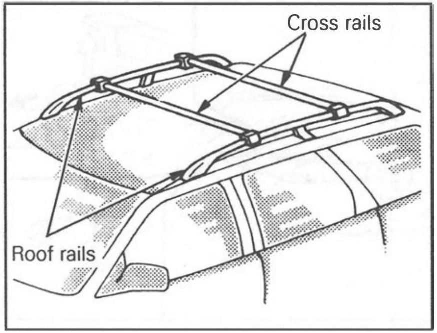
On some models, the glovebox light will come on when the door is opened if the instrument lights are on.

CAUTION:

To reduce the chance of injury in case of an accident or a sudden stop, always keep the glovebox door closed while driving.

Roof luggage carrier - Wagon

(if equipped)



To use the roof rails as a roof luggage carrier, you must fit the roof rails with two or more genuine Holden crossrails or equivalent.

Follow the manufacturer's instructions and precautions when installing the crossrails or equivalent.

NOTICE:

When you load cargo on the roof luggage carrier, observe the following precautions to prevent accidents and damaged to your vehicle:

Do not exceed maximum load rating of the roof luggage carrier.

Place cargo so that its weight is distributed evenly between the front and rear axles.

If loading long or wide cargo, never exceed vehicle overall lenght or width. (See "Dimensions" in section 8 for information on your vehicle overall length and width).

Before driving, make sure the cargo is securely fastened on the roof luggage carrier.

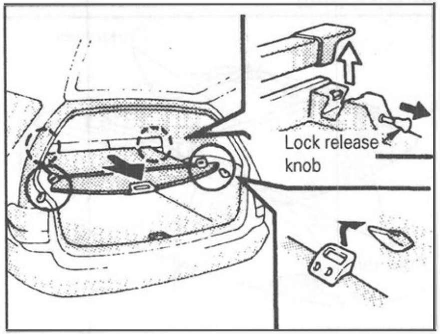
Avoid sudden starts, sharp turns or sudden braking.

continued overleaf

If driving for a long distance on rough roads, or at high speeds, stop the vehicle now and then during the trip to make sure the cargo remains secure.

Luggage cover - Wagon

(if equipped)



To use the luggage cover, pull it out of the retractor and hook it to the anchors.

To remove the luggage cover, pull the lock release knobs and lift up the luggage cover.

CAUTION:

The luggage cover is not a cargo restraint device. For information on luggage stowage, refer to "Luggage stowage precautions" in section 2.

INFORMATION BEFORE DRIVING YOUR HOLDEN

- Break-in period
- Fuel
- Catalytic converter
- Engine exhaust cautions
- Facts about engine oil consumption
- Brake system
- Brake pad wear indicators
- Luggage stowage precautions
- Your Holden's identification

Break-in period

Drive gently and avoid high speeds.

Your vehicle does not need an elaborate break-in. But following a few simple tips for the first 1000 km can add to the future economy and long life of your vehicle:

- Do not drive over 100 km/h.
- Maintain engine speed between 2000 and 4000 rpm.
- Avoid full-throttle starts.
- If possible, avoid hard stops during the first 300 km.
- Do not drive slowly with the transmission in a high gear.
- Do not drive for a long time at any single speed, either fast or slow.
- Do not tow a trailer during the first 800 km.

Fuel

Selecting the proper fuel is essential to satisfactory performance of the engine.

Engine damage caused by use of improper fuel is not covered under Holden's new vehicle warranty.

Fuel type

Use only unleaded petrol.

NOTICE:

Do not use leaded petrol in your vehicle. Use of leaded petrol will cause the catalytic converter to lose its effectiveness and the emission control system to function improperly. Also, this can increase maintenance costs.

Octane number

Use unleaded petrol with a research octane number (RON) of 91 or higher.

Use of a fuel with an octane number lower than stated will cause persistent heavy knocking. If severe, this will lead to engine damage.

Fuel tank capacity

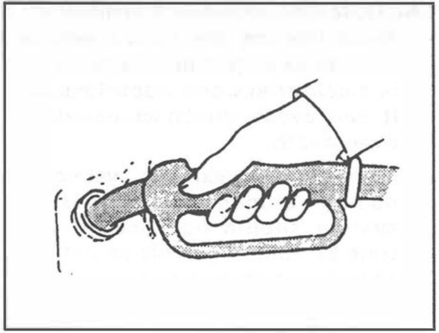
70 litres.

If your engine knocks

If you detect heavy knocking even when using the recommended fuel, or if you hear persistent knocking while holding a steady speed on level roads, consult your Holden dealer.

However, now and then, you may notice light knocking for a short time while accelerating or driving up hills. This is no cause for concern.

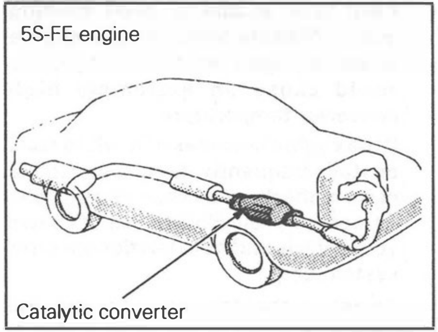
Filling with unleaded petrol

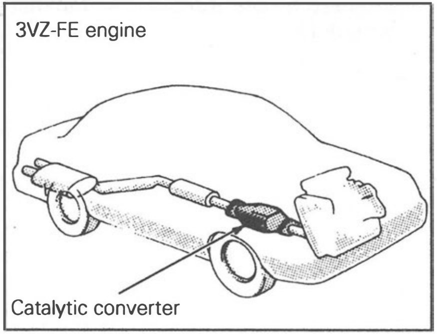


Before allowing the petrol to flow, push the nozzle hard enough to open the flap in the filler tube and continue pushing until the nozzle will go no further.

Service stations sell both leaded and unleaded petrol. Leaded petrol is dispensed through nozzles larger than unleaded ones. To protect your car from being filled with leaded petrol it has a filler neck that is only wide enough to accept the unleaded petrol dispensing nozzle. As an added precaution, the filler tube contains a flap that will not open when a leaded petrol nozzle is inserted. Thus, leaded petrol will spill out of the filler instead of going into the fuel tank.

Catalytic converter





The catalytic converter is an emission control device installed in the exhaust system.

It looks somewhat like a muffler, but its purpose is to reduce pollutants in the exhaust gas.

CAUTION:

- **Keep people and combustible materials away from the exhaust pipe while the engine is running. The exhaust gas is very hot.**
- **Do not drive, idle or park your vehicle over anything that might burn easily such as grass, leaves, paper or rags.**

continued overleaf

NOTICE:

Incorrect fuel and large amounts of unburned fuel flowing into the converter may cause it to overheat and/or reduce its life and efficiency. Similarly, certain engine malfunctions, particularly misfiring, create an excessive heat overload on the converter. To prevent this and other damage, observe the following precautions:

- Use only unleaded petrol.
- Do not drive with an extremely low fuel level; running out of fuel could cause the engine to misfire, creating an excessive load on the converter.
- Do not allow the engine to run at fast idle speed for more than 10 minutes or at normal idle speed for more than 20 minutes.
- Avoid racing the engine.
- Do not push-start or pull-start your vehicle.
- Do not turn off the ignition while the vehicle is moving.
- Keep your engine in good running order. Malfunctions in the engine electrical, ignition or fuel systems could cause an extremely high converter temperature.
- If the engine becomes difficult to start or stalls frequently, take your vehicle in for a check-up as soon as possible. Remember, your Holden dealer knows your vehicle and its catalytic converter system best.
- To ensure that the converter and the entire emission control system operate properly, your vehicle must receive the periodic inspections required by the Holden Maintenance Schedule.

Engine exhaust cautions

CAUTION:

- Avoid inhaling the engine exhaust. It contains carbon monoxide, which is a colourless and odourless gas. It can cause unconsciousness or even death.
- Make sure the exhaust system has no holes or loose connections. The system should be checked from time to time. If you hit something, or notice a change in the sound of the exhaust, have the system checked immediately.
- Do not run the engine in a garage or enclosed area except for the time needed to drive the vehicle in or out. The exhaust gases cannot escape, making this a particularly dangerous situation.
- Do not remain for a long time in a parked vehicle with the engine running. If it is unavoidable however, do so only in an unconfined area and adjust the heating or cooling system to force outside air into the vehicle.

- **Keep the trunk lid, or back door closed while driving. An open or unsealed trunk lid, or back door may cause exhaust gases to be drawn into the vehicle. If you must drive with the trunk lid, or back door open to accommodate a large object, close the windows, open all the dashboard vents and have the heating or cooling system deliver fresh air into the vehicle by turning the fan to high speed with the air intake control set at the FRESH or OUTSIDE AIR position.**
- **To allow proper operation of your vehicle's ventilation system, keep the inlet grilles in front of the windshield clear of snow, leaves, or other obstructions.**
- **If you smell exhaust fumes in the vehicle, drive with the windows open and the trunk lid, or backdoor closed. Have the cause immediately located and corrected.**

Facts about engine oil consumption

Functions of engine oil

Engine oil has the primary functions of lubricating and cooling the inside of the engine, and plays a major role in maintaining the engine in proper working order.

Engine oil consumption

It is normal that an engine should consume some engine oil during normal engine operation. The causes of oil consumption in a normal engine are as follows.

- Oil is used to lubricate pistons, piston rings and cylinders. A thin film of oil is left on the cylinder wall when a piston moves downwards in the cylinder. High negative pressure generated when the vehicle is decelerating sucks some of this oil into the combustion chamber. This oil as well as some part of the oil film left on the cylinder wall is burned by the high temperature combustion gases during the combustion process.
- Oil is also used to lubricate the stems of the intake valves. Some of this oil is sucked into the combustion chamber together with the intake air and is burned along with the fuel. High temperature exhaust gases also burn the oil used to lubricate the exhaust valve stems.

The amount of engine oil consumed depends on the viscosity of the oil, on the quality of the oil and on the conditions the vehicle is driven under.

More oil is consumed under such driving conditions as high speeds and frequent acceleration and deceleration.

A new engine consumes more oil, since its pistons, piston rings and cylinder walls have not become conditioned.

When judging the amount of oil consumption, note the oil may become diluted and make it difficult to judge the true level accurately.

As an example, if a vehicle is used for repeated short trips, and consumes a normal amount of oil, the dipstick may not show any drop in the oil level at all, even after 1000 km or more. This is because the oil is gradually becoming diluted with fuel or moisture, making it appear that the oil level has not changed.

The diluting ingredients evaporate out when the vehicle is then driven at high speeds, as on a highway, making it appear that oil is excessively consumed after driving at high speeds.

continued overleaf

Importance of engine oil level check

One of the most important points in proper vehicle maintenance is to keep the engine oil at the optimum level so that oil function will not be impaired. Therefore, it is essential that the oil level be checked regularly. Holden recommends that the oil level be checked every time you refuel the vehicle.

NOTICE:

Failure to check the oil level regularly could lead to serious engine damage due to insufficient oil.

For detailed information on oil level check, see "Checking the engine oil level" section 7.

Brake system

Tandem master cylinder brake system

The tandem master cylinder brake system is a hydraulic system with two separate sub-systems. If either sub-system should fail, the other will still work. However, the pedal will be harder to press, and your stopping distance will be longer. Also, the brake system warning light may come on.

CAUTION:

Do not rely on a single brake system. Have your brakes fixed immediately.

Brake booster

The brake booster uses engine vacuum to power-assist the brakes. If the engine should stop while you are driving, you can bring the vehicle to a stop with normal pedal pressure. There is enough reserve vacuum for one or two stops but no more!

CAUTION:

- **Do not pump the brake pedal if the engine stalls. Each push on the pedal uses up your vacuum reserve.**
- **Even if the power assist is completely lost, the brakes will still work. But you will have to push the pedal hard, much harder than normal. And your braking distance will be longer.**

Anti-lock brake system (vehicles with anti-lock brake system warning light).

The anti-lock brake system is designed to prevent lock-up of the wheels during sudden braking or braking on slippery surfaces to help the vehicle remain steerable and stable in such situations

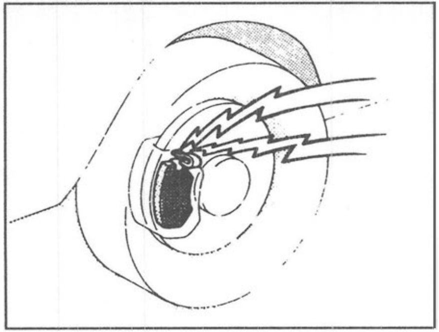
The system functions with normal pedal operation. When the anti-lock function is in action, a pulsation of the brake pedal may result, together with a characteristic noise. This indicates that the system is functioning properly.

When driving with the anti-lock brake system, keep the following in mind and adjust your driving according to the road and traffic conditions.

- Even with the anti-lock brake system, your vehicle still requires a sufficient stopping distance. Always maintain a safe distance from the vehicle in front of you.
- Always slow down when cornering. The anti-lock brake system cannot prevent accidents resulting from excessive speeds.
- On rough, gravel or snow-covered roads, etc., operation of the anti-lock brake system may result in a longer stopping distance than for vehicles not fitted with anti-lock brake system, so take this into account and reduce your speed.
- Avoid high speeds on wet roads. The anti-lock brake system cannot eliminate the risk of aquaplaning.

If the anti-lock brake system should fail, the brake system operates conventionally but without anti-lock function. Have your vehicle checked by your Holden dealer as soon as possible.

Brake pad wear indicators



The brake pad wear indicators on your disc brakes give a warning noise when the brake pads are worn to where replacement is required.

If you hear a squealing or scraping noise while driving, have the brake pads checked and replaced by your nearest Holden dealer immediately.

Avoid continuous driving with the warning noise.

Continuous driving without replacing the brake pads will cause expensive rotor damage and increasing brake pedal effort to get the same stopping distance.

Luggage stowage precautions

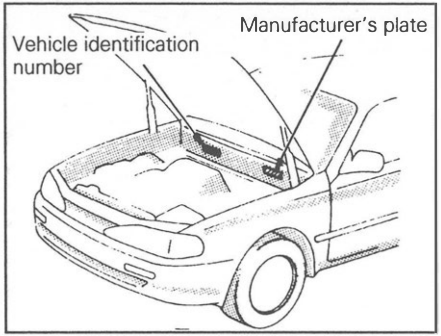
When stowing luggage or cargo in the vehicle, observe the following:

- Put luggage or cargo in the trunk or luggage compartment when at all possible. Be sure all items are secured in place.
- Be careful to keep the vehicle balanced. Locating the weight as far forward as possible helps maintain this.
- For better fuel economy, do not carry unneeded weight.

CAUTION:

- **To prevent luggage or packages from sliding forward during braking, do not stack anything in the enlarged trunk room or luggage compartment higher than the seat backs.**
- **Never allow anyone to ride in the enlarged trunk room or luggage compartment. It is not designed for passengers. They could be injured in sudden braking.**
- **Do not place anything on the filler panel behind the rear seat back or luggage cover. Such items may be thrown about and possibly injure people in the vehicle during sudden braking or an accident.**

Your Holden's identification

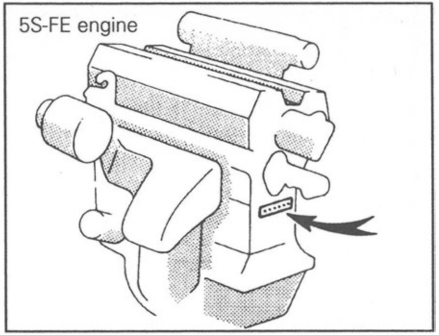

Vehicle identification number
Manufacturer's plate

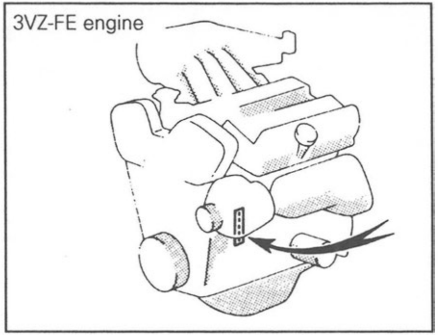
Vehicle Identification Number (VIN) is stamped on the engine compartment bulkhead.

The manufacturer's plate, mounted on the same bulkhead, contains VIN, Model data and date of manufacture (see below).

Date of manufacture means:

The date of manufacture, hereinafter called the "Built Date" is the calendar month and year in which the body shell and power train sub-assemblies are conjoined and the vehicle is driven or moved from the production line.


5S-FE engine


3VZ-FE engine

The engine number is stamped on the engine block as shown.

STARTING AND DRIVING

- Before starting the engine
- How to start the engine
- Pretrip safety check
- Tips for driving in various conditions
- Winter driving tips
- How to save fuel and make your vehicle last longer
- Trailer towing

Before starting the engine

1. Check the area around the vehicle before entering it.
2. Adjust seat position, seat back angle, head restraint height and steering wheel angle.
3. Adjust inside and outside rear view mirrors.
4. Close all doors.
5. Fasten seat belts.

How to start the engine

(a) Before cranking

1. Apply the parking brake firmly.
2. Turn off unnecessary lights and accessories.
3. **Manual transmission:** Press the clutch pedal to the floor and shift the transmission into neutral. Hold the clutch pedal to the floor until the engine is started.

Automatic transmission: Put the selector lever in "P". If you need to restart the engine while the vehicle is moving, put the selector lever in "N". A starter safety device will prevent the starter from operating if the selector lever is in any drive position.

4. **Automatic transmission only:** Depress the brake pedal and hold it depressed until just prior to driving off. Put the selector lever into "P" or "N".

(b) Starting the engine

Before starting the engine, be sure to follow the instructions in (a) "Before cranking".

Normal starting procedure

The electronic fuel injection system in your engine automatically controls the proper air-fuel mixture for starting. So you can start the cold or hot engine as follows:

1. With your foot off the accelerator pedal, crank the engine by turning the key to "START". Release it when the engine starts.
2. After the engine runs for a few minutes, you are ready to drive.

If the weather is below freezing, let the engine warm up for a few minutes longer before driving.

If the engine stalls...

Simply restart it, using the correct procedure given in normal starting.

If the engine will not start...

See "If your vehicle will not start" in Section 4.

NOTICE:

Do not crank for more than 15 seconds at a time. This may overheat the starter and wiring systems.

Do not race a cold engine.

If the engine becomes difficult to start or stalls frequently, have the engine checked immediately.

Pre-trip safety check

It is a good idea to conduct a safety check before starting out on a trip. A few minutes of checking can help ensure safe and pleasant driving. Just a basic familiarity with your vehicle is required and a careful eye! Or, if you would like, your Holden dealer will be pleased to make this check for you at a nominal cost.

CAUTION:

If you make this check in an enclosed garage, make sure there is adequate ventilation. Engine exhaust is poisonous.

Before starting the engine

Outside the vehicle

Tyres. Check the pressure with a gauge and look carefully for cuts, damage, or excessive wear.

Wheel nuts. Make sure no nuts are missing or loose.

Fluid leaks. After the vehicle has been parked for a while, check underneath for leaking fuel, oil, water, or fluid. (Water dripping from the air conditioner after use is normal.)

Wiper blades. Look for wear or cracks.

Lights. Make sure that the head lights, stop lights, tail lights, turn signals and other lights are all working. Check the head light aim.

Inside the vehicle

Jack and wheel nut wrench. Make sure you have your jack and wheel nut wrench.

Seat belts. Check that the buckles lock securely. Make sure that the belts are not worn or frayed.

Horn. Does it work?

Instruments and controls. Especially make sure that the warning lights, instrument lights and defroster are working.

Wipers and washer. Make sure that they both work and that the wipers do not streak.

Brakes. Make sure that the pedal has enough clearance. See section 7 "Engine and chassis" for instructions.

Spare fuses. Make sure you have spare fuses. They should cover all the amperage ratings designated on the fuse box lid.

In the engine compartment

Coolant level. Make sure that the coolant level is correct. See section 7 "Engine and chassis" for instructions.

Radiator and hoses. Make sure the front of the radiator is clean - not blocked with leaves, dirt, or bugs. Check the hoses for cracks, kinks, deterioration, and loose connections.

Battery and cables. All the battery cells should be filled to the proper level with distilled water. Look for corroded or loose terminals and a cracked case. Check the cables for good condition and connections.

Wiring. Look for damaged, loose, or disconnected wires.

Brake and clutch fluid levels. Make sure that the brake and clutch fluid levels are correct. See section 7 "Engine and chassis" for instructions.

Engine drive belts. Check all belts for fraying, cracks, wear or oiliness. Apply thumb pressure between the pulleys. The deflection of each belt should be within the specified limits. See section 7 "Engine and chassis" for instructions.

Fuel lines. Check the lines for leaks or loose connections.

After starting the engine

Exhaust system. Look for cracks, holes and loose supports. Listen for any leakage. Have any leaks fixed immediately. See "Engine exhaust cautions", section 2.

Automatic transmission fluid. Check the dipstick with the engine idling and the selector lever in "P". (See section 7 "Engine and chassis" for instructions.)

Power steering fluid. With the engine idling, give the steering wheel several end-to-end turns and check the fluid level. See section 7 "Engine and chassis" for instructions.

Engine oil level. Stop the engine and check the dipstick with the vehicle parked on a level spot. See section 7 "Engine and chassis" for instructions.

While driving

Instruments. Make sure that the speedometer and gauges are working.

Brakes. At a safe place make sure the brakes do not pull the vehicle to one side.

Anything unusual? Look for loose parts and leaks. Listen for abnormal noises.

If everything looks O.K., set your mind at ease and enjoy your trip!

Tips for driving in various conditions

- Always slow down in gusty crosswinds. This will allow you much better control.
- Drive slowly onto curbs and, if possible, at a right angle. Avoid driving onto high, sharp-edged objects and other road hazards. Failure to do so can lead to severe tyre damage resulting in the tyre bursting.
- When parking on a hill, turn the front wheels until they touch the curb so that the vehicle will not roll. Apply the parking brake, and place the transmission in "P" (automatic) or in first or reverse (manual). If necessary, block the wheels.

- Washing your vehicle or driving through deep water may get the brakes wet. To see whether they are wet, check that there is no traffic near you and then press the pedal lightly. If you do not feel a normal braking force, the brakes are probably wet. To dry them, drive the vehicle cautiously while lightly pressing the brake pedal with the parking brake pulled. If they still do not work safely, pull to the side of the road and call a Holden dealer for assistance. Do not drive the vehicle if the brakes are not working safely or if you suspect there is a problem.

CAUTION:

- **Before driving off, make sure that the parking brake is fully released and the parking brake reminder light is off.**
- **Do not leave your vehicle unattended while the engine is running. Do not rest your foot on the brake pedal while driving. It can cause dangerous overheating, needless wear, poor fuel economy and increase the possibility of the brakes not working properly.**
- **To drive down a long or steep hill, reduce your speed and downshift. Remember, if you ride the brakes excessively, they may overheat and not work properly.**
- **Be careful when accelerating, upshifting, downshifting or braking on a slippery surface. Sudden acceleration or engine braking could cause the vehicle to spin or skid.**
- **Do not continue normal driving when the brakes are wet. If they are wet, your vehicle will require a longer stopping distance and it may pull to one side when the brakes are applied. Also, the parking brake will not hold the vehicle securely.**
- **To maintain vehicle control when driving in wet conditions, minimise vehicle speed and avoid driving through large amounts of standing water.**

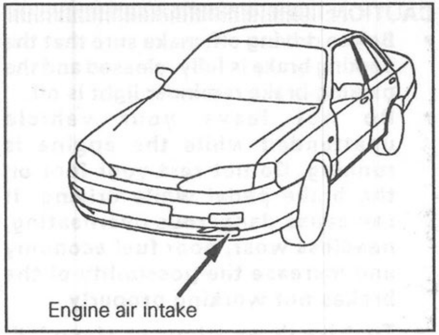
continued overleaf

NOTICE:

When driving in wet conditions, avoid driving through large amounts of standing water to prevent water entering the engine compartment. Water entering the engine compartment may enter the engine air intake and other components causing serious damage and/or the engine to stop and not restart.

Should you need to traverse deep water, first ascertain that the depth of the water is not more than 200 mm and that the surface of the ground under the water is firm and even with no deep holes, then you can proceed in low gear at a slow pace.

If the water level is deeper than above, it is not advisable to enter the water at that point but perhaps wait for the water to drop or find another crossing point.



Winter driving tips

To prevent the coolant from freezing, your engine cooling system must contain an ethylene-glycol based antifreeze containing corrosion inhibitor. For further information on engine coolant, refer to "Changing the engine coolant" and "Engine coolant type selection" in section 7 "Engine and chassis".

NOTICE:

Do not use alcohol type antifreeze.

Check the condition of the battery and cables.

Cold temperatures reduce the capacity of any battery, so it must be in good condition to provide enough power for winter starting. Section 7 "Electrical components", tells you how to visually inspect the battery. Your Holden dealer and most service stations will be pleased to check the level of charge.

Make sure the engine oil viscosity is suitable for the cold weather.

See section 7 "Engine and chassis" for recommended viscosity. Leaving a heavy summer oil in your vehicle during winter months may cause harder starting. If you are not sure about which oil to use, call your Holden dealer - he will be pleased to help.

Check the spark plugs and ignition system.

Make sure the plugs are not worn, fouled, or incorrectly gapped. section 7 "Engine and chassis" has instructions for inspecting. Visually check the rest of the system for loose connections or obvious damage.

Keep the door locks from freezing.

Squirt lock de-icer or glycerine into the locks to keep them from freezing. To open a frozen lock, try heating the key before inserting it.

Use a washer fluid containing an anti-freeze solution.

This product is available at your Holden dealer and most auto parts stores. Follow the manufacturer's directions for how much to mix with water.

NOTICE:

Do not use engine anti-freeze or any other substitute as washer fluid because it may damage your vehicle's paint.

Do not use your parking brake when there is a possibility it could freeze.

When parking, put the transmission into "P" (automatic) or into first or reverse (manual) and block the rear wheels. Do not use the parking brake as snow or water accumulated in and around the parking brake mechanism may freeze the parking brake and make it hard to release.

Keep ice and snow from accumulating under the fenders.

Ice and snow built up under your fenders can make steering difficult. During bad winter driving, stop and check under the fenders occasionally.

Depending on where you are driving, we recommend you carry some emergency equipment.

Some of the things you may put in the vehicle are tyre chains, window scraper, flares, small shovel, jumper cables, tools, etc.

How to save fuel and make your vehicle last longer

Getting more kilometres from a litre of fuel is simple - just take it easy. It will help make your vehicle last longer, too. Here are some specific tips on how to save money on both fuel and repairs:

- **Keep your tyres inflated at the correct pressure.** Under-inflation causes tyre wear and wastes fuel. See section 7 "Engine and chassis" for instructions.
- **Do not carry unneeded weight in your vehicle.** Excess weight puts a heavier load on the engine, causing greater fuel consumption.
- **Avoid lengthy warm - up idling.**

  Once the engine is running smoothly, begin driving - but gently. Remember however, that on cold winter days this may take a little longer.
- **Accelerate slowly and smoothly.** Avoid jerky starts. Get into high gear as quickly as possible.
- **Avoid long engine idling.** If you have a long wait and you are not in traffic, it is better to turn off the engine and start again later.
- **Avoid engine lug or over-revving.** Use a gear range suitable for the road you are travelling on.
- **Use your air conditioner only when absolutely necessary.** The air conditioner puts an extra load on the engine.
- **Avoid continuous speeding up and slowing down.** Stop-and-go driving wastes fuel.
- **Avoid unnecessary stopping and braking.** Maintain a steady pace. Try to time the traffic signals so you only need to stop as little as possible or take advantage of through streets to avoid trafficlights. Keep a proper distance from other vehicles to avoid sudden braking. This will also reduce wear on your brakes.
- **Avoid heavy traffic or traffic jams whenever possible.**
- **Do not rest your foot on the clutch or brake pedal.** This causes needless wear, overheating and poor fuel economy.
- **Maintain a moderate speed on highways.** The faster you drive, the greater the fuel consumption. By reducing your speed, you will cut down on fuel consumption.
- **Keep the front wheels in proper alignment.** Avoid hitting the curb and slow down on rough roads. Improper alignment not only causes faster tyre wear but also puts an extra load on the engine, which, in turn, wastes fuel.
- **Keep the bottom of your vehicle free from mud, etc.** This not only lessens weight but also helps prevent corrosion.
- **Keep your vehicle tuned-up and in top shape.** A dirty air cleaner, improper valve clearance, dirty plugs, dirty oil and grease, brakes not adjusted, etc. all lower engine performance and contribute to poor fuel economy. For longer life of all parts and lower operating costs, keep all maintenance work on schedule and if you often drive under severe conditions, see that your vehicle receives more frequent maintenance. For further details on maintenance requirements, refer to section 6.

CAUTION:

Never turn off the engine to coast down hills. Your power steering and brake booster will not function without the engine running. Also, the emission control system operates properly only when the engine is running.

Trailer towing

Your vehicle is designed primarily as a passenger-carrying vehicle. Towing a trailer will have an effect on handling, performance, braking, durability and driving economy (fuel consumption, etc.). Your safety and satisfaction depend on the proper use of correct equipment and cautious driving habits. For your safety and the safety of others, you must not overload your vehicle or trailer. Holden warranties do not apply to damage or malfunction caused by towing a trailer for commercial purposes. Ask your local Holden dealer for further details before towing.

Weight limits

Before towing, confirm that the towing capacity of your vehicle is not exceeded. For towing capacity specifications, see section 8.

Towing capacity has been tested at sea level. If you have to go to a high mountain area, keep in mind that power and towing capacity will decrease.

Towing equipment

Holden recommends using only towing equipment which has been designed and type-approved for your vehicle.

Tyres

- Ensure that your vehicle's tyres are properly inflated. See Section 8, "Specifications" for instructions.
- The trailer tyres should be inflated to the pressure recommended by the trailer manufacturer in respect to the total trailer weight.

Trailer lights

- To facilitate installation of electrical wiring for trailer lights, your vehicle is equipped with a trailer harness connector. On sedan models, the connector is located in the trunk behind the top of the right hand side trim. On wagon models, the connector is located in the rear of the luggage compartment behind the bottom of the left hand side trim

  Use this connector when installing electrical wiring for your trailer lights.

  Note: A trailer harness loom is available from your Holden dealer.

  Avoid direct splicing. Direct splicing may damage your vehicle's electrical system and cause a malfunction of your lights.
- Check for correct operation of the turn signals, stop and tail lights each time you hitch up.

continued overleaf

Break-in schedule

- Holden recommends that you do not tow a trailer with a new vehicle or a vehicle with any new power train component (engine, transmission, differential, wheel bearing, etc.) for the first 800 km of driving.

Maintenance

- If you tow a trailer, your vehicle will require more frequent maintenance due to the additional load. Refer to section 9 of this handbook for more detailed information on maintenance requirements when towing.

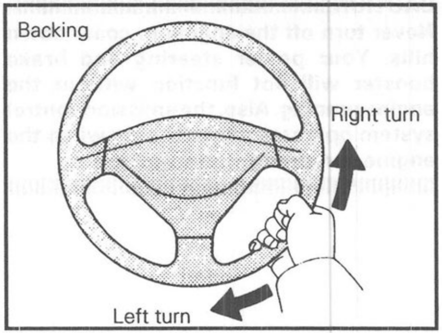
Pre-towing safety check

- Be sure not to exceed designated maximum load for the ball coupling of the tow bar. Please remember that the ball coupling load will increase the load on the vehicle. Maximum permissible rear axle capacity must not be exceeded.
- Be sure the trailer cargo load is adequately secured so that it will not shift.

Trailer towing tips

When towing a trailer, your vehicle will handle differently than when not towing. Keep the following points in mind when towing:

- Before starting out, check operation of the lights and all vehicle-trailer connections. After driving a short distance, stop and re-check the lights and connections. Before actually towing a trailer, practice turning, stopping and backing with a trailer in an area away from traffic until you learn the feel.
- Because stopping distance may be increased, vehicle-to-vehicle distance should be increased when towing a trailer. For each 10 km/h of speed, allow at least one vehicle and trailer length between you and the vehicle ahead. Avoid sudden braking as you may skid, resulting in jackknifing and loss of control. This is especially true on wet or slippery surfaces.
- Avoid jerky starts or sudden acceleration. If your vehicle has a manual transmission, prevent excessive clutch slippage by keeping engine rpm low and not racing the engine. Always start out in first gear.



- Avoid jerky steering and sharp turns. The trailer could hit your vehicle in a tight turn. Slow down before making a turn to avoid the necessity of sudden braking.
- Backing with a trailer is difficult and requires practice. Have someone guide you when backing to reduce the risk of an accident.
- Remember that when making a turn, the trailer wheels will be closer than the vehicle wheels to the inside of the turn. Therefore, compensate for this by making a larger than normal turning radius with your vehicle.

- Crosswinds and rough roads will adversely affect handling of your vehicle and trailer, causing sway. Pay attention to the rear from time to time to prepare yourself for being passed by large trucks or buses which may cause your vehicle and trailer to sway. If swaying occurs, firmly grip the steering wheel and reduce speed immediately but gradually. Never increase speed. If it is necessary to reduce speed, brake slowly. Steer straight ahead. If you make no extreme correction with the steering or brakes, the vehicle and trailer will stabilize.
- Be careful when passing other vehicles. Passing requires considerable distance. After passing a vehicle, do not forget the length of your trailer and be sure you have plenty of room before changing lanes.
- In order to maintain engine braking efficiency, do not use fifth gear (manual transmission) or overdrive (automatic transmission).
- Because of the added load of the trailer, your vehicle's engine may overheat on hot days (at temperatures over 30°C) when going up a long or steep grade. If the engine temperature gauge indicates overheating, immediately turn off the air conditioner (if in use), pull off the road and stop in a safe spot. Refer to "If your vehicle overheats", section 4.
- Always place wheel blocks under both the vehicle and trailer wheels when parking. Apply the parking brake firmly. Put the transmission in "P" (automatic) or in first or reverse (manual).

CAUTION:

- **Observe the legal maximum speeds for trailer towing.**
- **Slow down and downshift before descending steep or long downhill grades. Do not make sudden downshifts.**
- **Avoid holding the brake pedal down too long or too frequently. This could cause the brakes to overheat and result in reduced braking efficiency.**

NOTICE:

Ensure that the tow bar does not obscure the rear licence plate. If necessary, remove the tow ball or tow bar tongue when not required for towing.

IN CASE OF AN EMERGENCY

- If your vehicle will not start
- If your engine stalls while driving
- If your vehicle overheats
- If you have a flat tyre
- If your vehicle needs to be towed
- Emergency towing

If your vehicle will not start-

(a) Simple checks

Before making these checks, make sure that you have followed the correct starting procedure given in "How to start the engine" in section 3 and that you have sufficient fuel.

If the engine is not turning over or is turning over too slowly -

1. Check that the battery terminals are tight and clean.

2. If the battery terminals are O.K., switch on the interior light.

3. If the light is out, dim or goes out when the starter is cranked, the battery is discharged. Your vehicle cannot be push started. See "Jump starting", in this section for further instructions.

If the light is O.K., but the engine still will not start, it needs adjustment or repair. Call a Holden dealer or qualified repair shop.

NOTICE:

Do not pull or push start the vehicle. It may damage the vehicle or cause a collision when the engine starts. Also, the catalytic converter may overheat and become a fire hazard.

If the engine turns over at its normal speed but will not start-

1. Check that all the push-on connectors are tight at the ignition coil, distributor and spark plugs.

See section 7 "Introduction" for locations of these parts.

2. If the connectors are O.K., the engine may be flooded because of repeated cranking. See (b) "Starting a flooded engine" for further instructions.

(b) Starting a flooded engine

If the engine will not start, your engine may be flooded because of repeated cranking.

If this happens turn the key to "START" with the accelerator pedal held down. Continue cranking the engine with the accelerator pedal held down for 15 seconds and release them. Then try starting the engine with your foot off the accelerator pedal.

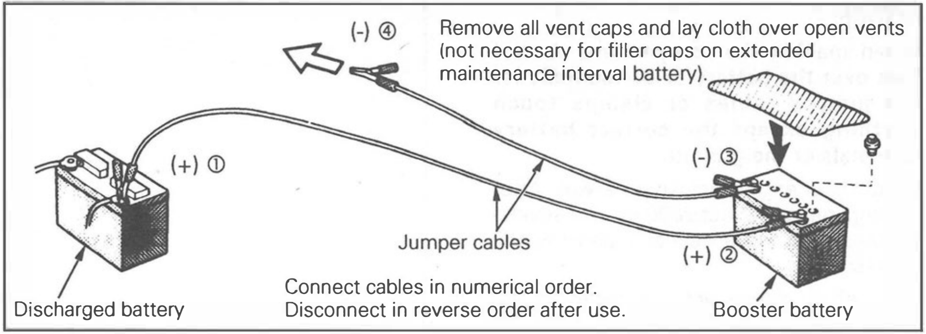
If the engine does not start after 15 seconds of cranking, release the key, wait a few minutes and try again.

If the engine still will not start, it needs adjustment or repair. Call a Holden dealer or qualified repair shop for assistance.

NOTICE:

Do not crank for more than 15 seconds at a time. This may overheat the starter and wiring systems.

Jump starting



Remove all vent caps and lay cloth over open vents (not necessary for filler caps on extended maintenance interval battery).

Connect cables in numerical order.
Disconnect in reverse order after use.

To avoid serious personal injury and damage to your vehicle which might result from battery explosion, acid burns, electrical burns, or damaged electronic components, these instructions must be followed precisely.

If you are unsure about how to follow this procedure, we strongly recommend that you seek the help of a competent mechanic or towing service.

CAUTION:

- **Batteries contain sulphuric acid which is poisonous and corrosive. Wear protective safety glasses when jump starting and avoid spilling acid on your skin, clothing or vehicle.**
- **If you should accidentally get acid on yourself or in your eyes, remove any contaminated clothing and flush the affected area with water for at least 15 minutes. Then get immediate medical attention. If possible, continue to apply water with a sponge or cloth while enroute to the medical office.**
- **The gas normally produced by a battery will explode if a flame or spark is brought near. Use only standardised jumper cables and do not smoke or light a match while jump starting.**

NOTICE:

The battery used for boosting must be 12-volt. Do not jump start unless you are sure that the booster battery is correct.

continued overleaf

Jump starting procedure

1. If the booster battery is installed in another vehicle, make sure that the vehicles are not touching. Turn off all unnecessary lights and accessories.

2. Remove all vent caps from the booster and discharged batteries. Lay a cloth over the open vents on both batteries. (This helps reduce the explosion hazard.)

3. If the engine in the vehicle with the booster battery is not running, start it and let it run for a few minutes. During jumping run the engine at about 2000 rpm with the accelerator pedal lightly depressed.

4. Connect the jumper cables in the exact order shown in the illustration: positive-to positive(+) and negative-to-engine or body ground(-). Note that you first connect the positive cable to the discharged battery and then to the booster battery. Next, connect the negative cable to the booster battery and then to a solid, stationary, metallic point (e.g. engine hanging hook) away from the battery. Do not connect it to or near any part that moves when the engine is cranked.

NOTICE:

When making the connections, do not lean over the battery or accidentally let the jumper cables or clamps touch anything except the correct battery terminals or the ground.

5. Start your engine in the normal way. After starting, run it at about 2000 rpm for several minutes with the accelerator pedal lightly depressed.

6. Carefully disconnect the cables in the exact reverse order: the negative cable and then the positive cable.

7. Carefully dispose of the battery cover cloths-they may now contain sulphuric acid.

8. Replace all the battery vent caps.

If the cause of your battery discharging is not apparent (for example, lights left on), you should have it checked.

If your engine stalls while driving

If your engine stalls while driving...

1. Reduce your speed gradually, keeping a straight line. Move cautiously off the road to a safe place.

2. Turn on your emergency flashers.

3. Try starting the engine again.

If the engine will not start, see "If your vehicle will not start".

CAUTION:

If the engine is not running, the power assist for the brakes and steering will not work so steering and braking will be much harder than usual.

If your vehicle overheats

If your temperature gauge indicates overheating, if you experience a loss of power, or if you hear a loud knocking or pinging noise, the engine has probably overheated. You should follow this procedure...

1. Pull safely off the road, stop the vehicle and turn on your emergency flashers. Put the transmission in "P" (automatic) or neutral (manual) and apply the parking brake. Turn off the air conditioner if it is being used.

2. If coolant or steam is boiling out of the radiator or reservoir, stop the engine. Wait until the steam subsides before opening the hood. If there is no coolant boiling over or steam, leave the engine running and make sure that the engine cooling fan is operating. If it is not, turn the ignition off..

CAUTION:

To help avoid personal injury, keep the hood closed until there is no steam. Escaping steam or coolant is a sign of very high pressure.

3. Visually check to see if the engine drive belt (water pump belt) is broken or loose. Look for obvious coolant leaks from the radiator, hoses, and under the vehicle. However, note that water draining from the air conditioner is normal if it has been used.

CAUTION:

When the engine is running, keep hands and clothing away from the moving fan and engine drive belts.

NOTICE:

The level of the coolant in the see-through reservoir does not always indicate the coolant content of the system. For instance, if there has been a sudden loss of coolant, the level in the reservoir will not drop. On such an occasion, remove the radiator cap (5S-FE engine) or coolant filler cap (3VZ-FE engine) when the engine has cooled enough and check the coolant level. Top up the cooling system if necessary. Always check for coolant leaks before restarting the engine. If a leak is found, or the coolant level is dropping, contact your Holden dealer before driving the vehicle.

continued overleaf

CAUTION:

Do not attempt to remove the radiator cap (5S-FE engine) or coolant filler cap (3VZ-FE engine) when the engine and radiator are hot. Serious injury could result from scalding hot fluid and steam blown out under pressure.

4. If the engine drive belt is broken or the coolant is leaking, stop the engine immediately. Call a Holden dealer for assistance.

5. If the engine drive belt is O.K. and there are no obvious leaks, check the coolant reservoir. If it is dry, add water to the reservoir while the engine is running. Fill it about half full.

You may help the engine cool down more quickly by running it at a fast idle for a few minutes. Make sure the air conditioner is OFF.

NOTICE:

Vehicles with 5S-FE engine have a temperature controlled electrical cooling fan which will rotate when the engine is running and overheating. If it does not rotate, an electrical failure has occurred. Switch the ignition OFF immediately and contact your nearest Holden dealer.

6. After the engine temperature has cooled to normal, again check the coolant level in the reservoir. If necessary, bring it up to half full again. Serious coolant loss indicates a leak in the system. You should have it checked as soon as possible at your Holden dealer.

NOTICE:

The engine in your vehicle is equipped with a by-pass valve. Therefore, if the engine tends to overheat, removal of the thermostat would have an adverse effect causing a lowering of cooling efficiency.

If you have a flat tyre -

1. Reduce your speed gradually, keeping a straight line. Move cautiously off the road to a safe place well away from the traffic. Avoid stopping on the centre divider of a highway. Park on a level spot with firm ground.

2. Stop the engine and turn on your emergency flashers.

3. Firmly apply the parking brake and put the transmission in "P" (automatic) or reverse (manual).

4. Have everyone get out of the vehicle on the side away from traffic.

5. Read the following instructions thoroughly.

CAUTION:

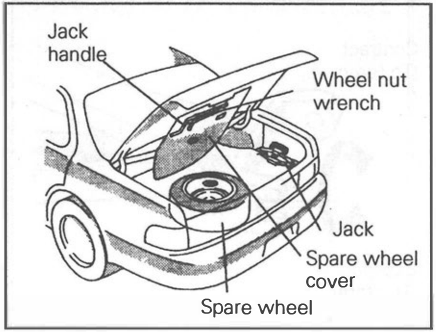
When jacking, be sure to observe the following to reduce the possibility of personal injury:

- **Follow jacking instructions.**
- **Use a jack only for lifting your vehicle during wheel changing.**
- **Never get beneath the vehicle when supported by a jack.**
- **Do not start or run the engine while your vehicle is supported by a jack.**

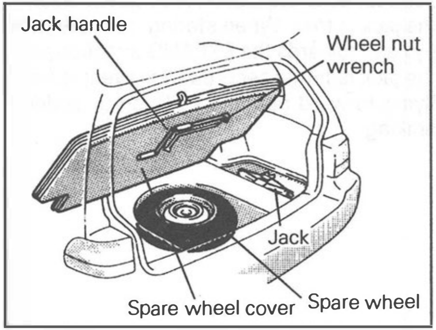
NOTICE:

Do not continue driving with a deflated tyre. Driving even a short distance can damage a tyre beyond repair.

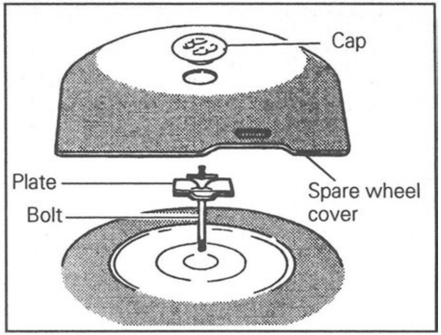
Location of required parts - Sedan


Jack handle
Wheel nut wrench
Jack
Spare wheel cover
Spare wheel

Wagon


Jack handle
Wheel nut wrench
Jack
Spare wheel cover
Spare wheel

1. Remove the spare wheel and tools


Cap
Plate
Bolt
Spare wheel cover

a. Loosen the cap and remove it.

b. Remove the spare wheel cover .

c. Unclip jack handle and wheel nut wrench from the underside of the spare wheel cover.

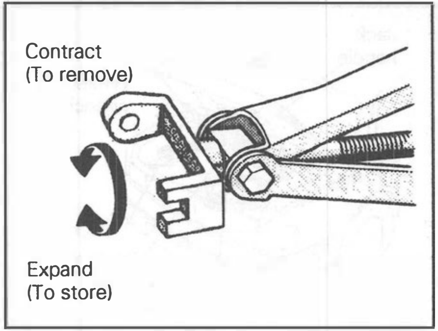
d. Loosen and remove the bolt and plate.

e. Take the spare wheel out of the vehicle.

continued overleaf

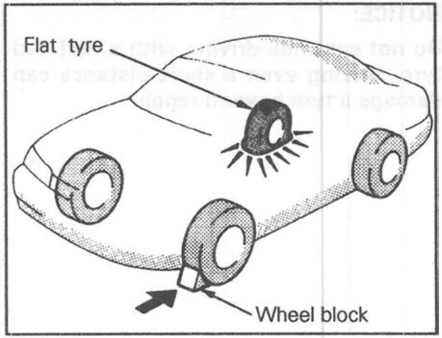
When storing the spare wheel, put it into place with the outer side facing up. Then secure the wheel by repeating the above removal steps in reverse order to prevent it from flying forward during a collision or sudden braking.

2. Remove the jack



When removing the jack, turn the joint by hand towards the CONTRACT direction until the jack is free. When storing, turn the joint by hand towards the EXPAND direction until the jack is firmly secured to prevent it from flying forward during a collision or sudden braking.

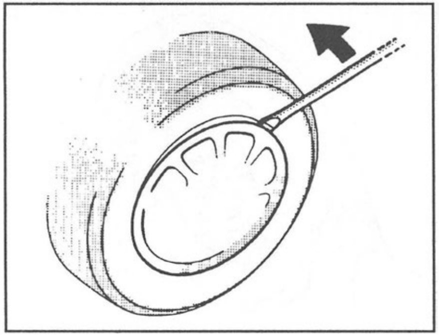
3. Block the wheel



Block the wheel diagonally opposite the flat tyre to keep the vehicle from rolling when it is jacked up.

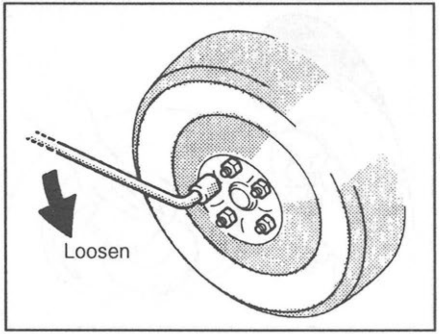
When blocking the wheel, place the wheel block from the front for the front wheels or from the rear for the rear wheels.

4. Remove wheel ornament



Pry off the wheel ornament using the beveled end of the wheel nut wrench as shown. To avoid personal injury, do not attempt to pull off the ornament by hand.

5. Loosen wheel nuts

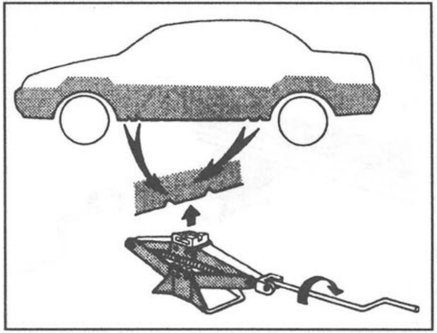


You should always loosen the wheel nuts slightly **before** raising the car.

The nuts turn **counter clockwise** to loosen. To get the maximum force, fit the wrench to the nut so that the handle is on the left side as shown above. Hold the wrench near the end of the handle and use your body weight to press down on the wrench.

Do not remove the nuts yet. Just unscrew them about one-half turn.

6. Position the jack



Position the jack at the correct jack point as shown.

Make sure the jack is positioned on level and solid ground.

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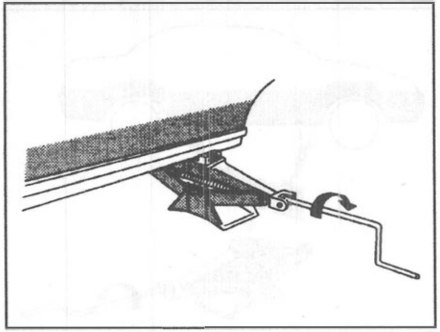
7. Raise your vehicle



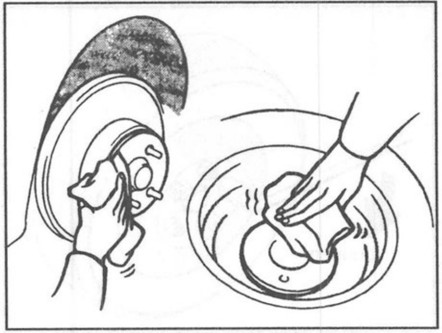
After making sure that no one is in the vehicle, raise it high enough so that the spare wheel can be installed.

Remember you will need more ground clearance when putting on the spare wheel than when removing the flat tyre.

To raise the vehicle, insert the jack handle into the jack (it is a loose fit) and turn it clockwise. As the jack touches the vehicle and begins to lift, double-check that it is properly positioned.

CAUTION:
Never get under the car when it is supported only by a jack.

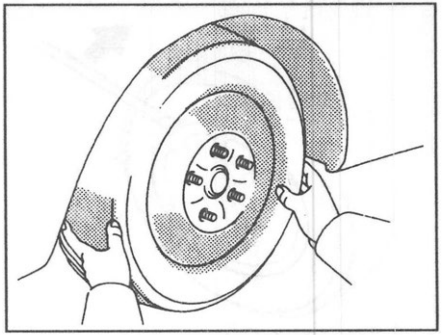
8. Change wheels



Remove the wheel nuts and change wheels

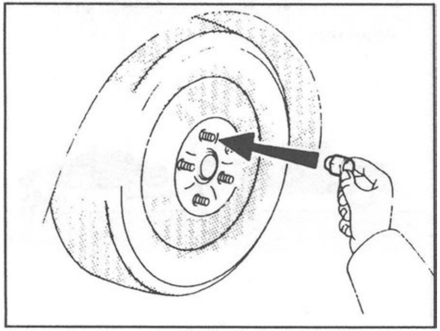
Lift the flat tyre straight off and put it aside.

Before putting on wheels, remove any foreign matter on the mounting surfaces. Installation of wheels without good metal-to-metal contact at the mounting surface can cause wheel nuts to loosen and eventually cause a wheel to come off while driving. Therefore, after the first 1600 km, check to see that the wheel nuts are tight.



Roll the spare wheel into position and align the holes in the wheel with the bolts. Then lift up the wheel and get at least the top bolt started through its hole. Wiggle the wheel and press it back over the other bolts.

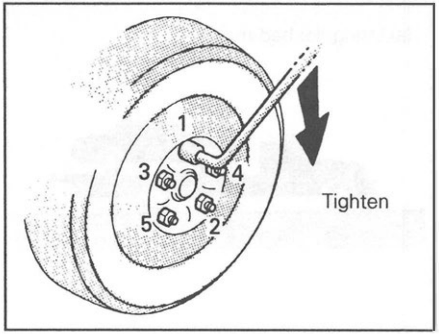
9. Reinstall wheel nuts



Reinstall all the wheel nuts finger tight.

Reinstall the wheel nuts (tapered end inward) and tighten them as much as you can by hand. Press back on the wheel and see if you can tighten them more.

10. Lower your vehicle and tighten wheel nuts



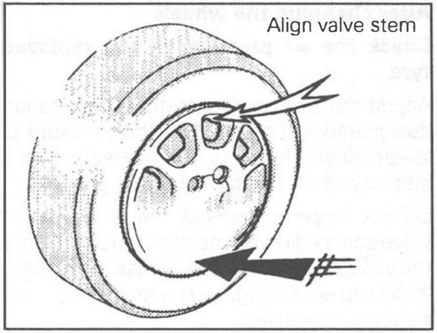
Lower the vehicle completely and tighten the wheel nuts.

Turn the jack handle counter clockwise to lower the vehicle.

Use only the wheel nut wrench to tighten the nuts. Do not use other tools or any additional leverage other than your hands, such as a hammer, pipe or your foot. Make sure the wrench is securely engaged over the nut.

Tighten each nut a little at a time in the order shown. Repeat the process until all the nuts are tight.

11. Reinstall wheel ornament



Put the wheel ornament into position and then tap it firmly with the side or heel of your hand to snap it into place.

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After changing the wheels

Check the air pressure of the replaced tyre.

Adjust the air pressure to the specification designated in section 8. If the pressure is lower, drive slowly to the nearest service station and inflate to the correct pressure.

Do not forget to reinstall the tyre inflation valve cap as dirt and moisture could get into the valve core and possibly cause air leakage. If the cap is missing, have a new one put on as soon as possible.

Restow all the tools, jack and flat tyre securely.

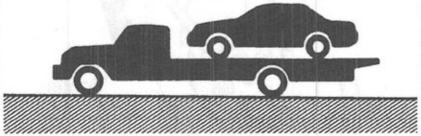
As soon as possible after changing wheels, tighten the wheel nuts to the torque specified in section 8 with a torque wrench and have a technician repair the flat tyre.

CAUTION:

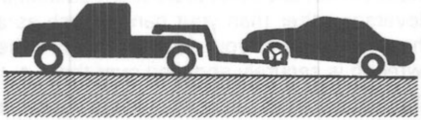
Before driving, make sure that all the tools, jack and flat tyre are securely in place in their storage location to reduce the possibility of personal injury during a collision or sudden braking.

If your vehicle needs to be towed

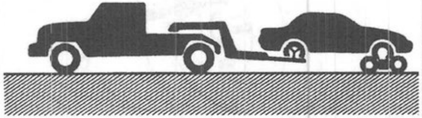
(a) Using flat bed truck



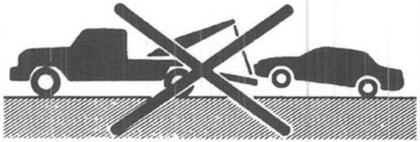
(b) Towing with wheel lift:
–From front



– From rear



(c) Towing with sling type



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If towing is necessary, we recommend you have it done by your Holden dealer or a commercial tow truck service.

Proper equipment will help ensure that your vehicle is not damaged while being towed. Commercial operators are generally aware of the provincial and local laws pertaining to towing.

Your vehicle can be damaged if it is towed incorrectly. Although most operators know the correct procedure, it is possible to make a mistake. Rather than risk damage to your vehicle, why don't you make sure that the following few precautions are observed. If necessary, show this page to the tow truck driver.

Towing precautions

Use a safety chain system for all towing and abide by the provincial and local laws. The wheels and axle on the ground must be in good condition. If they are damaged, use a towing dolly.

(a) Using flat bed truck

Holden recommends this as the best method for your vehicle.

(b) Towing with wheel lift

From front – Release the parking brake.

From rear –

- Manual transmission:
  We recommend using a towing dolly under the front wheels. If you do not use a towing dolly, put the transmission in neutral and place the ignition key in the "ACC" position.

  NOTICE:

  Do not tow with the key removed or in the "LOCK" position when towing from rear without a towing dolly. The steering lock mechanism is not strong enough to hold the front wheels straight.
- Automatic transmission:
  Use a towing dolly under the front wheels.
  NOTICE:

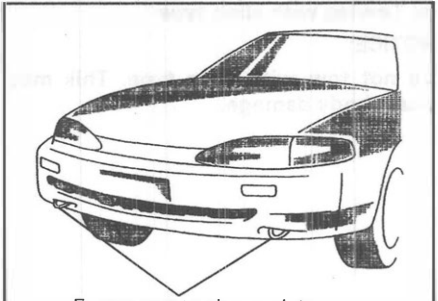
  Never tow a vehicle with an automatic transmission from the rear with the front wheels on the ground as this may cause serious damage to the transmission.

(c) Towing with sling type

NOTICE:

Do not tow with sling type. This may cause body damage.

Emergency towing



Emergency towing eyelets

If a towing service is not available in an emergency, your vehicle may be temporarily trailed by a cable secured to one of the emergency towing eyelets under the front of the vehicle.

A driver must be in the vehicle to steer it and operate the brakes.

Towing in this manner may be done only on hard-surfaced roads, for a short distance and at low speeds. Also, the wheels, axles, drive train, steering and brakes must all be in good condition.

Before towing, release the parking brake and put the transmission in neutral (manual) or "N" (automatic). The key must be in "ACC" (engine off) or "ON" (engine running).

CAUTION:

If the engine is not running, the power assist for the brakes and steering will not work so steering and braking will be much harder than usual.

CORROSION PREVENTION AND APPEARANCE CARE

- Protecting your Holden from corrosion
- Washing and waxing your Holden
- Cleaning the interior

Protecting your Holden from corrosion

Holden, through its diligent research and design, utilizing the most advanced technology available, has done its part to help prevent rust and has provided you with the finest quality in the construction of your car. Now, it is up to you. Proper care of your Holden can help ensure long-term rust prevention.

The most common causes of corrosion to your vehicle are:

- The accumulation of road surface control chemicals, dirt and moisture in hard-to-reach areas under the car.
- Chipping of paint, or undercoating caused by minor accidents or by stones and gravel.

Your care is especially important if you live in a particular area or operate your car under certain environmental conditions:

- Road surface control chemicals will accelerate rust as will the presence of salt in the air near the sea or in areas of industrial pollution.
- High relative humidity accelerates rust, especially when temperatures range just above the dew point (condensation temperature).
- Wetness or dampness to certain parts of your car for an extended period of time may cause rust even though other parts of the car may be dry.
- High temperatures will cause rust to those components of the car which are prevented from quick-drying due to lack of proper ventilation.

The above signifies the necessity to keep your car, particularly the underside, as clean as possible and to repair any damage to paint or protective coatings as soon as possible.

To help prevent corrosion on your Holden, follow these guidelines:

WASH YOUR CAR FREQUENTLY. It is, of course, necessary to keep your car clean by regular washing. However, to prevent rust or corrosion, the following points should be observed .

- If you drive on roads using surface control chemicals or if you live near the ocean, you should hose off the underside of the car at least twice a month to minimise rusting.
- High pressure water or steam is effective for cleaning the car's underside and wheel housings.

  Pay particular attention to these areas as it is difficult to see all the mud and dirt. It will do more harm than good to simply wet the mud and debris without removing them. The lower edge of doors, rocker panels and frame members have drain holes which should not be allowed to clog with dirt as trapped water in these areas can cause rust.
- It is preferable that the underside of the car be washed thoroughly when winter is over.
- If your particular operating conditions are of a consistent adverse nature, your Holden dealer will be happy to advise you on additional rust prevention measures and undercoating.

After washing your car, make sure the brakes are fully dry before driving. See "Washing and waxing your Holden", for more tips.

Check the condition of the paint. If you find any chips or scratches in the paint, touch them up immediately to prevent rust from starting. Apply the paint soon after the damage occurs or rust may set in. To do a good job, stir the paint well and use a small artist's brush. Make sure the area is clean and dry. Only apply the smallest possible amount of paint to the area where the paint is missing. Do not paint on the surface around the scratch or chip. If the chip or scratches have gone through to the bare metal, have a recognised body shop make the repair.

Check the interior of your car. Water and dirt can accumulate under the floor mats and could cause rust. Occasionally check under the mats to make sure the area is dry. Be particularly careful when transporting chemicals, cleansers, fertilizers, salt, etc. These items should be transported in proper containers. If a spill or leak should occur, immediately clean and dry the area.

USE MUD FLAPS ON YOUR VEHICLE. If you drive on gravel roads, mud flaps help protect your car. Therefore, if a mudflap is lost, a new one should be fitted as soon as possible.

DO NOT PARK YOUR CAR IN A DAMP, POORLY VENTILATED GARAGE. If you wash your car in the garage, or if you drive it in covered with water or snow, your garage may be so damp it will cause rust. Even if your garage is heated, a wet car can rust in it if the ventilation is poor.

Washing and waxing your Holden

Wash your car in the shade when the body is not hot to touch. Use a mild carwash soap and rinse it well.

Dirt can cause small scratches in the paint and the chemicals in some dirt and air pollutants can cause deterioration of the paint and trim. If you park or drive your Holden near the ocean or on roads using surface control chemicals, it is especially important to prevent corrosion.

Your vehicle can be washed in an automatic car wash. Remember, however, that the paint surface could then be scratched with the brushes. Scratches reduce the paint's gloss retention and durability. They can become apparent easily, especially on darker paints.

The following is an adequate procedure for washing your car by hand.

1. Begin by rinsing all loose dirt off the vehicle with a hose. If the underside has picked up mud or road salt, use a hard, direct stream from a hose to remove it.

continued overleaf

2. Wash with a commercial car-wash product available at your Holden dealer or auto parts store. Follow the manufacturer's mixing instructions carefully. Dip your sponge or cloth into the wash bucket frequently and do not rub too hard. Let the soap and water remove the dirt.

On plastic bumpers, remove dirt carefully and do not scrub with abrasive cleaners. The bumper face is soft.

Road tar may be removed with turpentine. Use warm water and car-wash soap for insects and tree sap. Commercial products are also available.

NOTICE:

Do not use petrol or strong solvents which may be toxic or cause damage.

3. Rinse the vehicle thoroughly. If any soap dries on the vehicle, it may cause streaking. In hot weather, you may have to rinse each section of the vehicle right after you wash it.

4. Dry the vehicle with a moist chamois or soft towel. The main purpose of drying is to remove excess water so that the vehicle will air without water spots. Do not rub or press hard, you might scratch the paint.

If you detect any stone chips or scratches in the paint, touch them up immediately to protect the bare metal from corrosion.

After washing your vehicle, make sure the brakes are fully dry before driving.

Polishing and waxing is recommended to maintain the original beauty of your Holden's finish.

1. Always wash and dry the vehicle before you begin waxing, even if you are using a combined cleaner and wax.

2. Use a good quality polish and wax. If the finish has become extremely weathered, use a car-cleaning polish, followed by a separate wax. Carefully follow the manufacturer's instructions and precautions. Be sure to polish and wax the chrome trim as well as the paint.

3. Wax the vehicle again when water does not bead but remains on the surface in large patches.

NOTICE:

Always remove the plastic bumpers if your vehicle is re-painted and placed in a high heat waxing booth. High temperatures could damage the bumpers.

Cleaning the interior

Vinyl upholstery

The vinyl upholstery may be easily cleaned with a mild soap or detergent and water solution.

First vacuum over upholstery to remove loose dirt. Then, using a sponge or soft cloth, apply the soap solution to the upholstery. After allowing it to soak in for a few minutes to loosen the dirt, remove the dirt and wipe off the soap with a clean damp cloth. If all the dirt does not come off, repeat the procedure. Commercial foaming-type upholstery cleaners are also available which work well. Follow the manufacturer's instructions.

NOTICE:

Do not use solvent, thinners, petrol or window cleaner on the interior.

Use a good foam-type shampoo to clean the carpets.

Begin by vacuuming thoroughly to remove as much dirt as possible. Several types of foam cleaners are available; some are in aerosol cans and others are powders or liquids which you mix with water to produce a foam. To shampoo the carpets, use a sponge or brush to apply the foam and rub in overlapping circles. Do not apply water. The best results are obtained by keeping the carpet as dry as possible. Read the shampoo instructions and follow them closely.

The seat belts may be cleaned with mild soap and water or with lukewarm water.

Use a cloth or sponge. As you are cleaning, check the belts for excessive wear, fraying, or cuts.

NOTICE:

Do not use dye or bleach on the belts. Doing so may weaken them.

The windows may be cleaned with any household window cleaner.

NOTICE:

When cleaning the inside of the windows, be careful not to scratch or damage the heater wires on the rear window.

If you have questions about the cleaning of your Holden, your local Holden dealer will be pleased to answer them.

MAINTENANCE REQUIREMENTS

- Maintenance facts
- Does your vehicle need repairing?

Maintenance facts

HOLDEN WISE
QUALITY SERVICE & PARTS

Regular maintenance is essential.

We urge you to protect your new vehicle by having your Holden serviced in accordance with the maintenance schedule given in section 9 of this handbook.

Regular maintenance will aid:

- Good fuel economy.
- Long vehicle life.
- Driving enjoyment.
- Safety.
- Reliability.
- Warranty coverage.
- Compliance with government regulations.

Your Holden has been designed for economical driving and economical maintenance. Many formerly required maintenance items are no longer required or are not required as often. To ensure your car runs at peak efficiency and lasts a long time, follow the maintenance schedule in section 9 of this handbook. For most people, the odometer reading will indicate when service is needed. If, however, you drive infrequently, your car should be serviced at least every 6 months, as shown on the schedule. Under severe driving conditions, more frequent maintenance is required.

Where to go for service

It makes good sense to take your vehicle to your local Holden dealer for service.

Holden technicians are well trained specialists. And they are receiving the latest service information through technical bulletins, service tips, and in-dealership training programs.

Your Holden dealer has invested a lot of money in special Holden tools and service equipment. They help do the job better and at less cost.

Your Holden dealer service department will perform all of the scheduled maintenance on your vehicle reliably and economically.

What about do-it-yourself maintenance?

Many of the maintenance items are easy to do yourself if you have a little mechanical ability and a few basic automotive tools. These items are indicated in the maintenance schedule, and simple instructions for how to perform them are give in section 7 "Do-it-yourself maintenance".

Note, however, that some maintenance tasks require special tools and skills. These are best performed by qualified technicians. Even if you are an experienced do it your self mechanic, we recommend that repairs and maintenance be conducted by your Holden dealer who will keep a record of maintenance on your Holden. This record could be helpful should you ever require Warranty Service.

The service interval for scheduled maintenance is determined by the odometer reading or time interval, whichever comes first, shown in the schedule.

Rubber hoses (for cooling and heater system, brake system and fuel system) should be inspected by a qualified technician in accordance with the Holden maintenance schedule.

They are particularly important maintenance items. Have any deteriorated or damaged hoses replaced immediately. Note that rubber hoses will deteriorate with age, which may result in swelling or cracking.

Does your vehicle need repairing?

Be on the alert for changes in performance, sounds, and visual tip-offs that indicate service is needed. Some important clues are as follows:

- Engine missing, stumbling, or pinging.
- Appreciable loss of power.
- Strange engine noises.
- A leak under the vehicle (however, water dripping from the air conditioner after use is normal).
- Change in exhaust sound (This may indicate a dangerous carbon monoxide leak. Drive with the windows open and have the exhaust system checked immediately).
- Flat-looking tyre; excessive tyre squeal when cornering; uneven tyre wear.
- Vehicle pulls to one side when driving straight on a level road.
- Strange noises related to suspension movement.
- Loss of brake effectiveness; spongy feeling brake or clutch pedal; pedal almost touches floor; vehicle pulls to one side when braking.

continued overleaf

- Engine temperature continually higher than normal.
- Engine continually runs hot; oil pressure gauge stays low.

If you notice any of these clues, take your vehicle to your Holden Dealer as soon as possible. It probably needs adjustment or repair.

CAUTION:

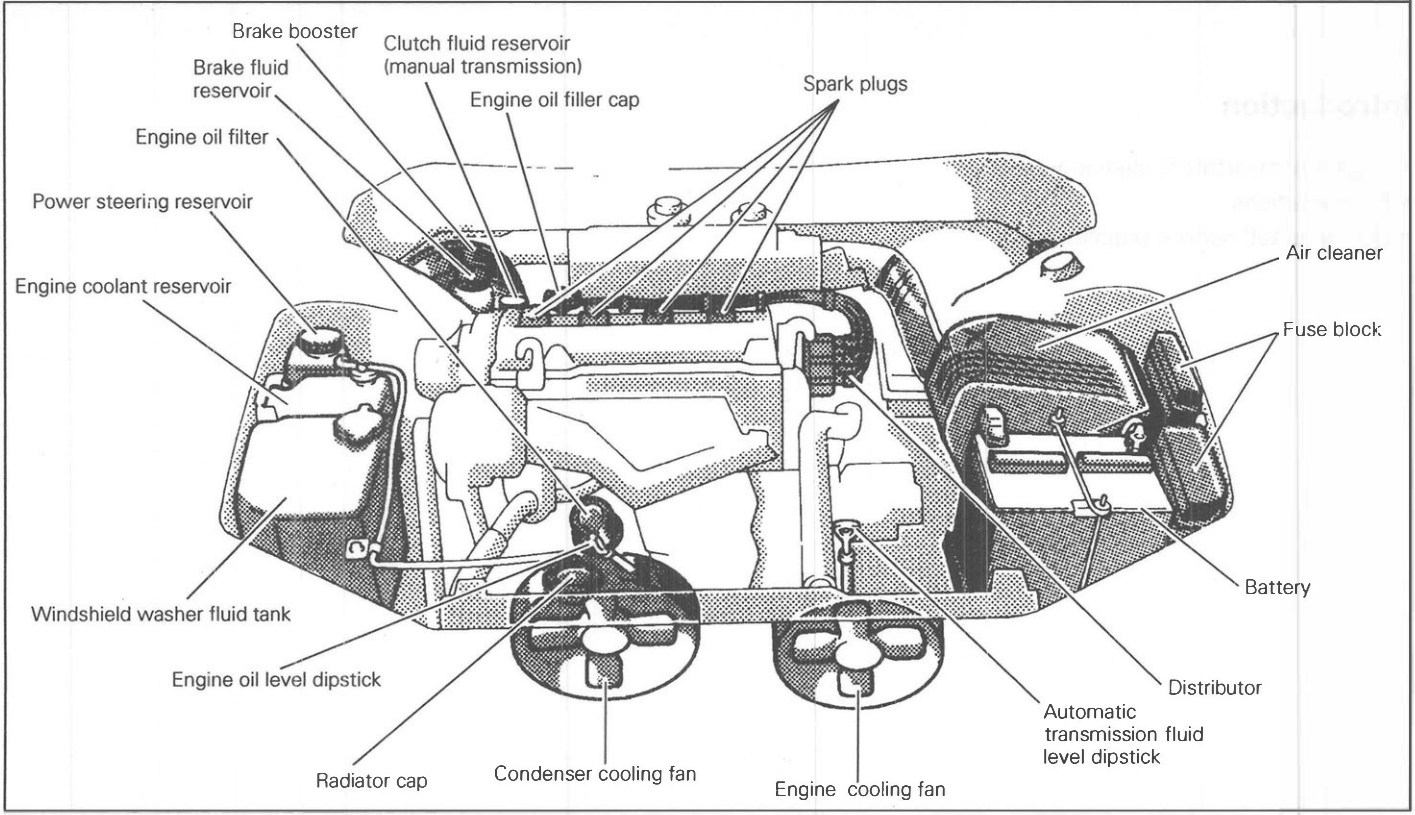
Do not continue driving with the vehicle unchecked. It could result in serious vehicle damage and possibly personal injury.

DO-IT-YOURSELF MAINTENANCE

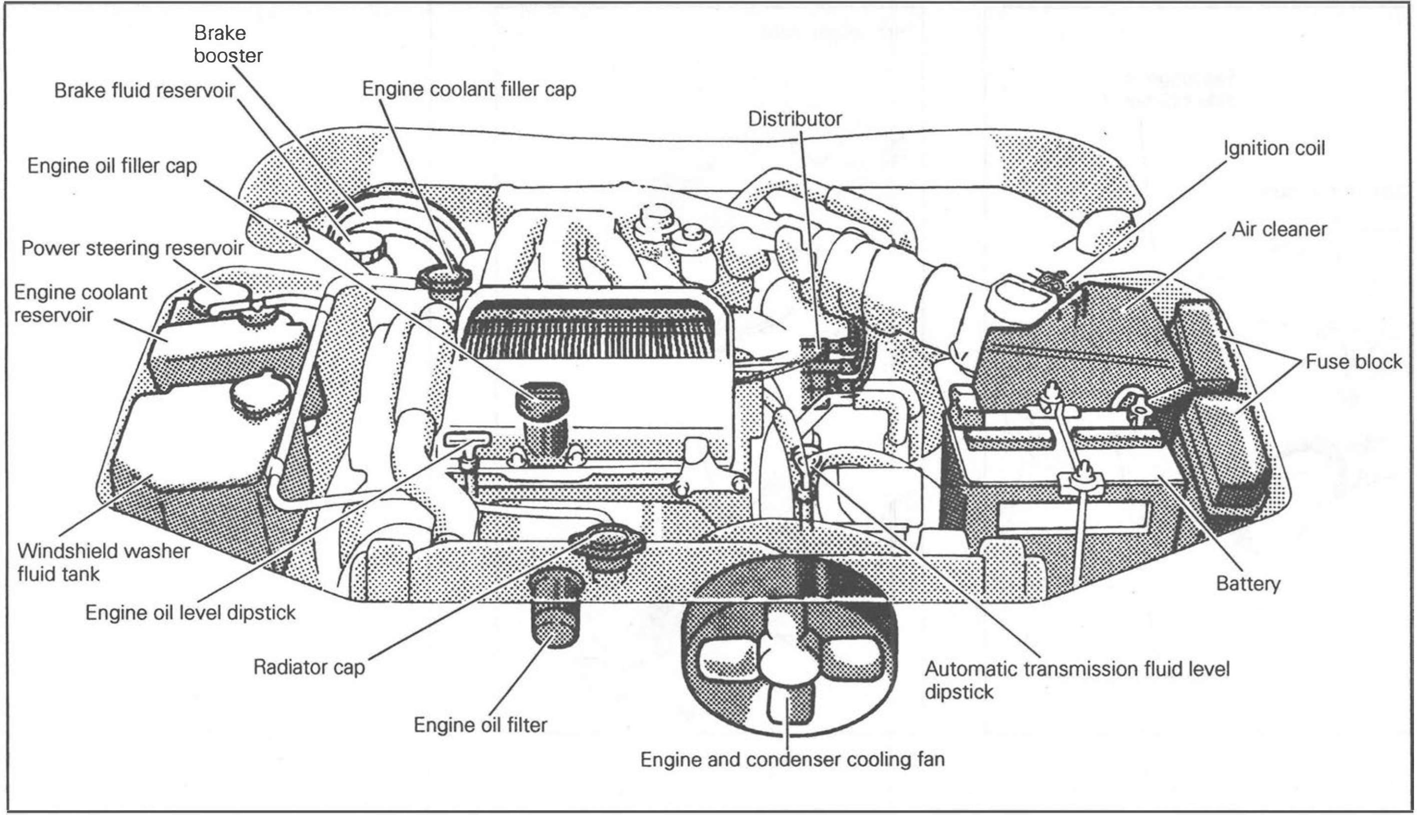
Introduction

- Engine compartment overview
- Fuse locations
- Do-it-yourself service precautions

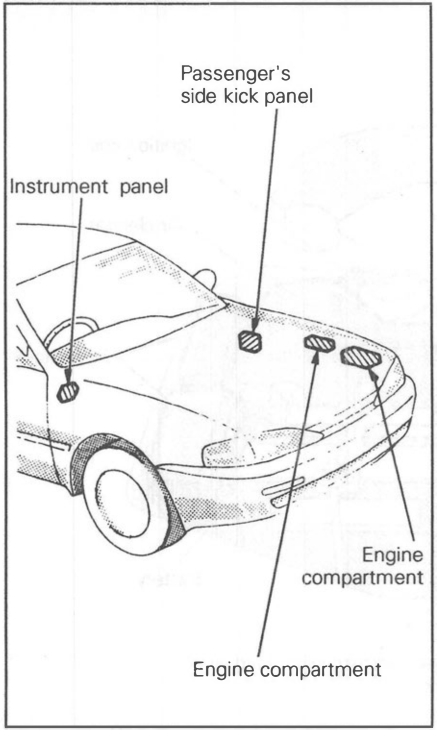
Engine compartment overview (5S-FE engine)

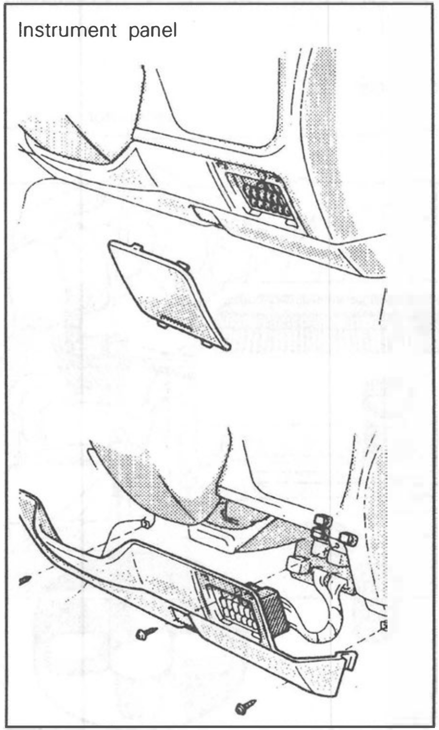

Brake booster
Clutch fluid reservoir (manual transmission)
Brake fluid reservoir
Spark plugs
Engine oil filler cap
Engine oil filter
Power steering reservoir
Air cleaner
Engine coolant reservoir
Fuse block
Battery
Windshield washer fluid tank
Engine oil level dipstick
Distributor
Automatic transmission fluid level dipstick
Radiator cap
Condenser cooling fan
Engine cooling fan

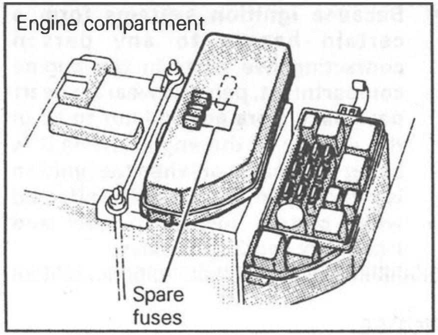
Engine compartment overview (3VZ-FE engine)

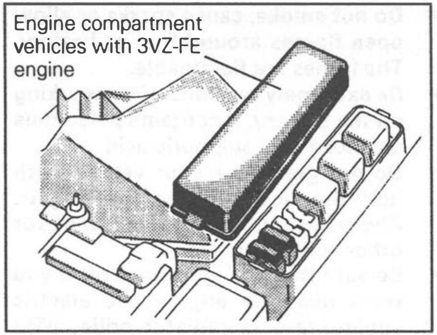

Brake booster
Brake fluid reservoir
Engine coolant filler cap
Distributor
Engine oil filler cap
Ignition coil
Air cleaner
Power steering reservoir
Engine coolant reservoir
Fuse block
Windshield washer fluid tank
Battery
Engine oil level dipstick
Radiator cap
Automatic transmission fluid level dipstick
Engine oil filter
Engine and condenser cooling fan

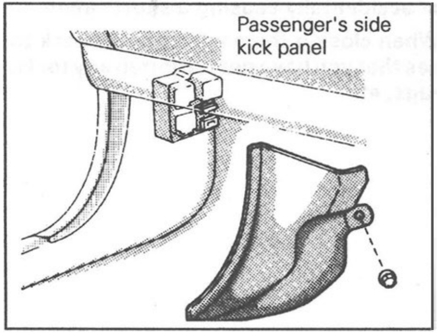
Fuse locations

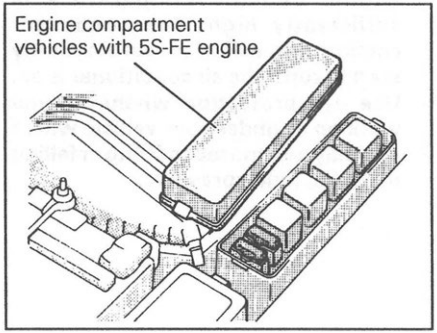

Passenger's side kick panel
Instrument panel
Engine compartment
Engine compartment


Instrument panel


Engine compartment
Spare fuses


Engine compartment vehicles with 3VZ-FE engine


Passenger's side kick panel


Engine compartment vehicles with 5S-FE engine

Do-it-yourself service precautions

If you perform maintenance by yourself, be sure to follow the correct procedure given in this section.

You should be aware that improper or incomplete servicing may result in operating problems.

This part gives instructions only for those items that are relatively easy for an owner to perform. As explained in section 6 there are still a number of items that must be done by a qualified technician with special tools.

Utmost care should be taken when working on your vehicle to prevent accidental injury. Here are a few precautions that you should be especially careful to observe:

CAUTION:

- **When the engine is running, keep hands, clothing and tools away from the moving fan and engine drive belts. (Removing rings, watches and ties is advisable).**
- **Immediately after driving, the engine, radiator and exhaust manifold will be hot, so be careful not to touch them. Oil and fluid will also be hot.**
- **Do not smoke, cause sparks or allow open flames around fuel or battery. The fumes are flammable.**
- **Be extremely cautious when working on the battery. It contains poisonous and corrosive sulphuric acid.**
- **Do not get under your vehicle with just the body jack supporting it. Always use automotive jack stands or other solid supports.**
- **Be sure that the ignition is off if you work near the engine and electric cooling fans or radiator grille. With the ignition on, the engine cooling fan may automatically start to run if the engine coolant temperature is sufficiently high. The condenser cooling fan will also automatically start to run if the air conditioner is on.**
- **Use eye protection whenever you work on or under your vehicle where you may be exposed to flying or falling material, fluid spray, etc.**
- **Because ignition systems form a certain hazard to any person contacting live parts in the engine compartment, persons wearing heart pacemakers are advised not to be in the vicinity of the engine while it is being worked on or when the ignition is switched on. They could be affected when certain voltage, current and frequency conditions exist.**

NOTICE:

Remember that battery and ignition cables carry high currents or voltages. Be careful of accidentally causing a short circuit.

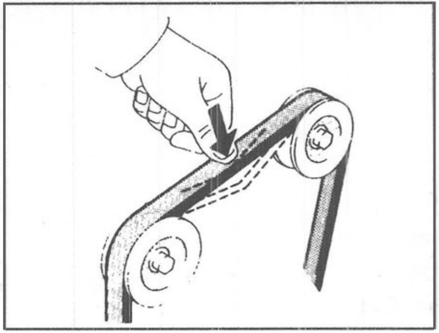
When closing the engine hood, check to see that you have not forgotten any tools, rags, etc.

DO-IT-YOURSELF MAINTENANCE

Engine and Chassis

- Checking the engine drive belts
- Checking the engine oil level
- Changing the engine oil and filter
- Checking the engine coolant level
- Changing the engine coolant
- Checking and replacing the air cleaner element
- Replacing spark plugs
- Checking clutch pedal freeplay
- Checking brake and clutch fluid
- Checking brake pedal freeplay
- Checking brake pedal clearance
- Checking parking brake adjustment
- Checking the brake booster
- Checking power steering fluid
- Checking steering wheel freeplay
- Checking manual transmission oil
- Checking automatic transmission fluid
- Checking differential fluid
- Checking tyre pressure
- Checking and replacing tyres
- Rotating tyres
- Snow chains
- Replacing wheels

Checking the engine drive belts



Visually inspect the condition of the belts. Check their tension by applying thumb pressure midway between the pulleys.

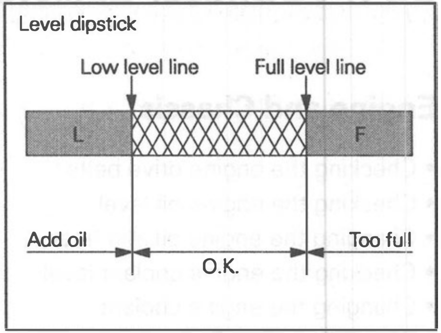
(a) With the engine turned off, check the belts for cracks, fraying, excessive wear or oil stains. Have belts in poor condition immediately replaced by your Holden dealer.

(b) With your thumb, press hard on each belt midway between the pulleys. Each belt should deflect no more than the amount specified in section 8. If a belt is loose, have it adjusted by your Holden dealer.

CAUTION:

When the engine is hot, be careful not to touch the radiator or engine.

Checking the engine oil level



With the engine at operating temperature and turned off, check the oil level on the dipstick.

1. To get a true reading, the vehicle should be on a level spot. After turning off the engine, wait a few minutes for the oil to drain back into the bottom of the engine.

2. Pull out the dipstick and wipe it clean with a clean rag.

3. Re-insert the dipstick. Push it in as far as it will go, or the reading will not be correct.

4. Pull the dipstick out and look at the oil level on the end. If it is between the "F" and "L" marks, it is O.K.

CAUTION:

Be careful not to touch the hot exhaust manifold.

If the oil level is below or only slightly above the low level line, add engine oil of the same type as already in the engine.

Remove the oil filler cap and add engine oil in small quantities at a time, checking the dipstick.

The approximate quantity of oil needed to fill between the low level line and the full level line on the dipstick is indicated below for reference.

When the level reaches within the correct range, install the filler cap hand-tight.

Oil quantity, L:

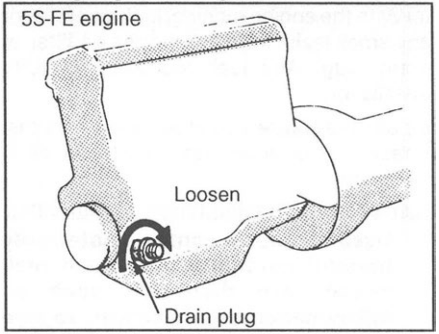
5S-FE engine	1.0
3VZ-FE engine	1.1

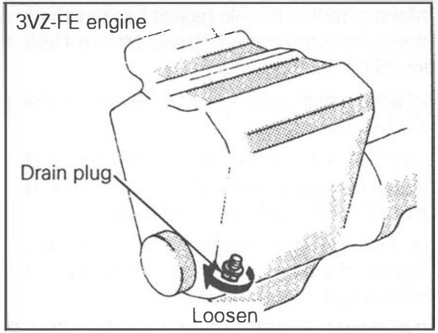
NOTICE:

Avoid overfilling, or the engine could be damaged.

Check the oil level on the dipstick once again after adding the oil.

Changing the engine oil and filter





1. Warm up the engine for a few minutes and then turn it off. Remove the oil filler cap.

(a) Park the vehicle on a level spot. Warm up the engine until the engine temperature gauge shows a rise (warm oil will drain faster and more thoroughly). Turn the engine off.

(b) Remove the oil filler cap. This allows air to enter the engine as the oil drains.

2. Remove the drain plug and allow the oil to drain fully.

(a) Place a drain pan under the drain plug.

(b) Using a wrench, remove the drain plug. Allow the oil to drain fully.

CAUTION:

The oil may be hot - be careful not to burn yourself.

3. Remove the old oil filter. Install a new one. Reinstall the drain plug.

(a) Using an oil filter wrench (any of several common types will work), loosen the oil filter. It turns counter clockwise. Once loose, you may unscrew it the rest of the way by hand. When removing it, hold up the end so that oil does not spill out.

(b) With a clean rag, wipe off the mounting surface on the engine so that the new filter will seat well.

continued overleaf

Make sure that the old gasket has not stuck to the mounting surface. If it has, remove it before installing the new filter.

(c) Smear a little engine oil on the rubber gasket of the new oil filter.

(d) Screw the new oil filter into place and tighten it until the gasket contacts the seat. Then give it an additional 3/4 turn to seat the filter.

(e) Re-install the drain plug and a new gasket. Tighten the plug with your wrench, but do not force it and strip the threads.

CAUTION:

Be careful not to touch the hot exhaust manifold.

4. Add oil and install the filler cap. Start the engine and check for leaks at the filter or drain plug.

(a) See "Engine oil selection" for proper oil selection. Engine oil additives are neither needed nor, recommended.

(b) After adding the oil, make sure that the filler cap is installed hand-tight. You should double-check the oil level on the dipstick.

(c) With the engine running, look carefully for any small leaks from around the oil filter or drain plug. Any leak indicates a faulty installation.

(d) Turn the engine off and wait a few minutes. Check the oil level again and add oil if necessary.

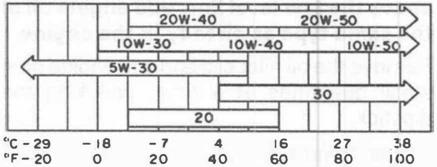
CAUTION:

- **Used engine oil contains potentially harmful contaminants which may cause skin disorders such as inflammation or skin cancer, so care should be taken to avoid prolonged and repeated contact with it. To remove used engine oil from your skin, wash thoroughly with soap and water.**
- **Do not leave used oil within the reach of children.**
- **Dispose of used oil and filter only in a safe and acceptable manner. Do not dispose of used oil and filter in household trash, in sewers or onto the ground. Call your dealer or a service station for information concerning recycling or disposal.**

Engine oil selection

Use engine oil of the API grade SG or better. Determine the viscosity for your climate. Recommended viscosity is given in the chart below.

Recommended viscosity (SAE):



Temperature range anticipated before next oil change

NOTICE:

Holden recommends genuine Holden Motor Oil where available.

Checking the engine coolant level (5S-FE engine)

Look at the see-through coolant reservoir. The coolant level is satisfactory if it is between the "FULL" and "LOW" lines on the reservoir. If the level is low, add coolant of the same type as already in the system.

The radiator cap should also be removed from time to time when the engine is cold to inspect the coolant level.

NOTICE:

The level of coolant in the see-through reservoir does not always indicate the correct content of the system. If the engine is overheating or there has been a sudden loss of coolant, remove the radiator cap once the engine has cooled down and check the coolant level. The radiator must always be full to the top of the filler neck. Refer to "If your car overheats" in section 4 for further information.

The coolant level in the reservoir will vary with engine temperature. However, if the level is on or below the "LOW" line, add coolant. Bring the level up to the "FULL" line.

Always use the same type of coolant as already in the cooling system. For information on coolant, see also "Changing the engine coolant".

If the coolant level drops within a short time after replenishing, there may be a leak in the system. Visually check the radiator, hoses, radiator cap, drain cocks and water pump.

If no leak can be found, have the system pressure tested at your Holden dealer.

CAUTION:

To prevent burning yourself, do not remove the radiator cap when the engine is hot.

Checking the engine coolant level (3VZ-FE engine)

Look at the see-through coolant reservoir. The coolant level is satisfactory if it is between the "FULL" and "LOW" lines on the reservoir. If the level is low, add coolant of the same type as already in the system.

The coolant filler cap should also be removed from time to time when the engine is cold to inspect the coolant level.

NOTICE:

The level of coolant in the see-through reservoir does not always indicate the correct content of the system. If the engine is overheating or there has been a sudden loss of coolant, remove the coolant filler cap once the engine has cooled down and check the coolant level. The cooling system must always be full to the top of the filler neck. Refer to "If your car overheats" in section 4 for further information.

The coolant level in the reservoir will vary with engine temperature. However, if the level is on or below the "LOW" line, add coolant. Bring the level up to the "FULL" line.

Always use the same type of coolant as already in the cooling system. For information on coolant, see also "Changing the engine coolant".

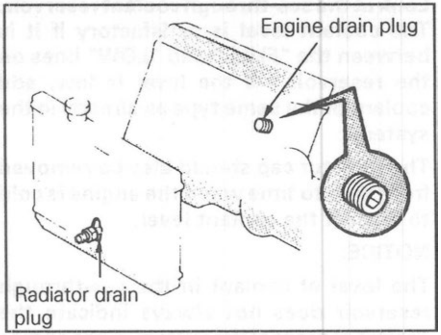
If the coolant level drops within a short time after replenishing, there may be a leak in the system. Visually check the radiator, hoses, engine coolant filler cap, drain cocks and water pump.

If no leak can be found, have the system pressure tested at your Holden dealer.

CAUTION:

To prevent burning yourself, do not remove the coolant filler cap when the engine is hot.

Changing the engine coolant (5S-FE engine)



Drain the cooling system and flush it out with water in accordance with the maintenance schedule in section 9 of this handbook.

To ensure the cooling system does not contain an air lock which could damage the engine after it has been refilled with coolant, it is essential that the draining, flushing and refilling procedure given herein, be followed carefully. Should you feel that the procedure is too difficult for your to do, your Holden dealer will be pleased to do it for you.

Draining procedure

1. Park the vehicle on a level spot where the coolant can drain into a suitable disposal container.

2. Ensure the engine is cool.

3. Move heater temperature control to the full heat position.

4. Remove radiator cap.

5. Open radiator drain plug.

6. Open engine drain plug.

7. Allow coolant to drain completely.

Flushing Procedure

8. Insert mains pressure water supply hose into radiator through the filler neck.

9. Flush radiator until clear water flows from the radiator drain.

10. Close radiator drain plug.

11. Continue flushing until clear water runs from engine drain.

12. Close water supply and securely tighten engine drain plug.

Refilling Procedure

13. Disconnect heater hose at heater tap neck and support open end at a level above opposite connected end.

14. Pour the correct amount of Holden approved coolant into the radiator.

NOTICE:

The use of Holden approved coolant is essential when replacing the coolant in Holden vehicles. The chemical composition of the coolant is the product of extensive research and development by Holden engineers. It has been designed specifically to provide maximum protection for your engine and associated components. Therefore, it must always be added when renewing engine coolant and never mixed with any other coolant or additive. See " Engine coolant type selection" this section and "Winter driving tips" in section 4 for further information.

15. Add clean demineralised or distilled water to the radiator until water escapes from the heater hose.

16. Reconnect heater hose using new hose clamp. Ensure hose is engaged fully onto heater tap neck.

17. Refill radiator to top of filler neck and ensure the coolant reservoir is showing full.

NOTICE:

If you spill some of the coolant, be sure to wash it off with water to prevent it from damaging parts or paint.

Add only clean demineralised or distilled water together with Holden approved coolant to fill the radiator.

Check procedure

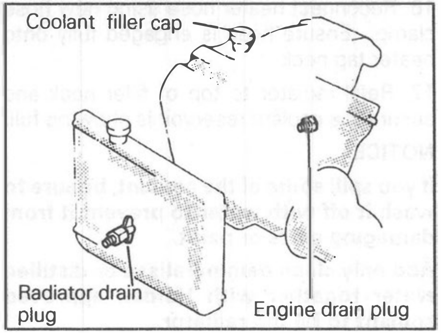
Start the engine and let it idle for approximately 6 minutes. Whilst idling, add clean water to the radiator to maintain full water level condition. Turn off engine and reinstall radiator cap.

Check the cooling system for water leaks.

Road test the vehicle to confirm that normal operating temperature is not exceeded.

Stop engine and, taking care not to touch anything hot in the engine compartment, check again for water leaks.

Changing the engine coolant (3VZ-FE engine)



Drain the cooling system and flush it out with water in accordance with the maintenance schedule in section 9.

To ensure the cooling system does not contain an air lock which could damage the engine after it has been refilled with coolant, it is essential that the draining, flushing and refilling procedure given herein, be followed carefully. Should you feel that the procedure is too difficult for you to do, your Holden dealer will be pleased to do it for you.

Draining procedure

1. Park the vehicle on a level spot where the coolant can drain into a suitable disposal container.
2. Ensure the engine is cool.
3. Move heater temperature control to the full heat position.
4. Remove coolant filler cap.
5. Remove the top radiator hose from the radiator.
6. Open radiator drain plug.
7. Open engine drain plug.
8. Allow coolant to drain completely.

Flushing Procedure

9. Insert mains pressure water supply hose into radiator inlet.
10. Flush radiator until clear water flows from the radiator drain.
11. Close water supply.
12. Insert mains pressure water supply hose into engine coolant filler neck.
13. Flush engine until clear water flows from the engine drain.
14. Close water supply.
15. Securely tighten radiator and engine drain plugs.
16. Reinstall radiator top hose onto radiator using a new hose clamp.

Refilling procedure

17. Pour the correct amount of Holden approved coolant into the coolant filler. Then slowly fill with clean demineralised or distilled water until the coolant reaches the top of the filler neck. Wait for a few minutes and add water in small quantities until the water level does not drop.

Ensure coolant reservoir is showing full.

NOTICE:

The use of Holden approved coolant is essential when replacing the coolant in Holden vehicles. The chemical composition of the coolant is the product of extensive research and development by Holden engineers. It has been designed specifically to provide maximum protection for your engine and associated components. Therefore, it must always be added when renewing engine coolant and never mixed with any other coolant or additive. See "Engine coolant type selection" this section and "Winter driving tips" in section 4 for further information.

NOTICE:

If you spill some of the coolant, be sure to wash it off with water to prevent it from damaging parts or paint.

Add only clean demineralised or distilled water together with Holden approved coolant to fill the cooling system.

Check procedure

Start the engine and let it idle for approximately 6 minutes. Whilst idling, add water to the system to maintain full water level condition. Turn off engine and reinstall coolant filler cap.

Check the cooling system for water leaks.

Road test the vehicle to confirm that normal operating temperature is not exceeded.

Stop engine and, taking care not to touch anything hot in the engine compartment, check again for water leaks.

Engine coolant type selection

Your engine cooling system must contain ethylene-glycol based antifreeze containing anticorrosive.

Ethylene-glycol antifreeze coolant containing anticorrosive is the type of coolant your new Holden was delivered with. In addition to providing antifreeze protection and preventing subsequent damage to the engine cooling system as a result of freezing, also protects the engine cooling system components from corrosion.

The use of Holden approved coolant is essential when replacing the coolant in Holden vehicles. The Holden coolant's chemical composition is the product of extensive research and development and has been designed to provide maximum protection for your engine and associated components when replaced in correct proportions in accordance with the vehicle maintenance schedule.

continued overleaf

When replacing coolant, it is essential that all existing coolant be thoroughly flushed from the system (includes engine radiator, heater and hoses) and Holden approved coolant added together with clean demineralised or distilled water. See "Changing the engine coolant" this section. Holden approved coolant must be used to provide maximum protection.

For information on coolant specifications, refer to section 8.

NOTICE:

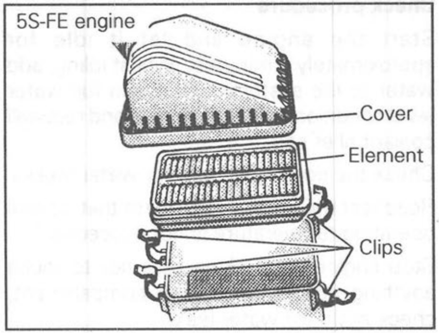
To maintain designed cooling system protection and efficiency, the mixing of Holden's approved coolant with any other coolant or additive must not occur.

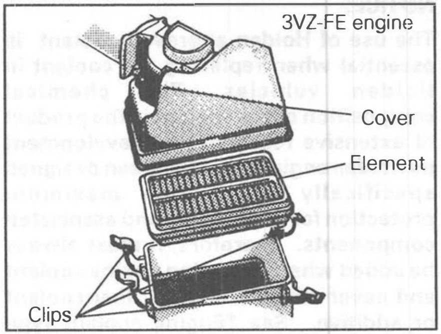
Use only clean demineralised or distilled water to fill the cooling system.

Do not use alcohol type antifreeze or plain water alone.

Whenever coolant is replaced, the system must be thoroughly flushed as described in "Changing the engine coolant" in this section.

Checking and replacing the air cleaner element





To inspect the element, release the clips, remove the cover and take out the element.

Inspect the lower surface of the element. If it is dirty, it should be replaced. If it is just moderately dusty, it may be cleaned by blowing low pressure compressed air from the upper surface. Do not wash or oil the element.

When installing an element, be sure to remove any dust from where the element seats and put the element properly in place.

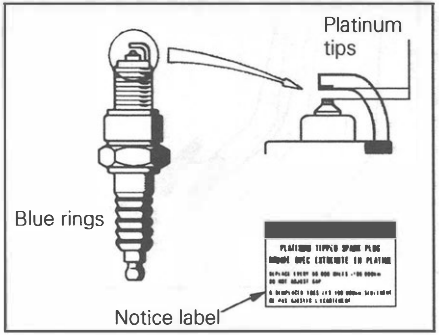
NOTICE:

Do not drive with the air cleaner removed or excessive engine wear could result. Also, backfiring could cause a fire in the engine compartment.

NOTICE:

When lifting the cover, ensure that none of the emission control hoses or electrical connectors are disconnected.

Replacing spark plugs (5S-FE engine)

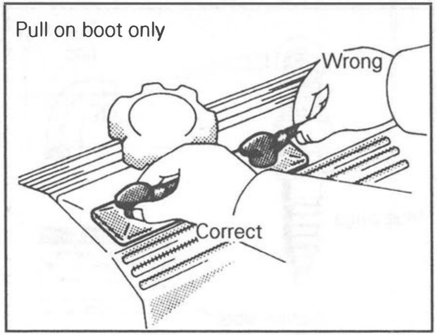


Your engine uses platinum-tipped spark plugs which do not require replacement as frequently as the conventional type. The spark plugs should be replaced at regular intervals in accordance with the maintenance schedule in section 9.

The platinum-tipped spark plugs are identified by blue rings on the ceramic. They will last much longer than the conventional type.

NOTICE:

Do not reuse the platinum-tipped spark plugs by cleaning or regapping.



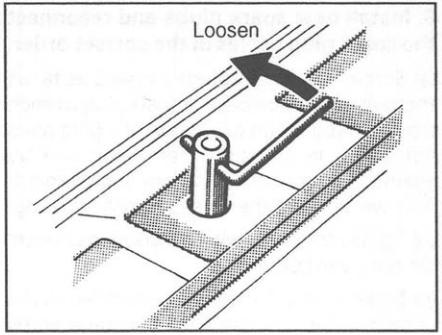
1. Unfasten the spark plug cables by pulling on the boot, not on the cable itself.

a. Note the order of the spark plug cables. If you are not positive that you can reconnect them correctly, mark each cable with a number on a piece of tape before disconnecting it.

b. Unfasten the connector by pulling straight up. Pulling on the cables may break the carbon conductor inside.

CAUTION:

The boots may be hot, so be careful.



2. Unscrew the old spark plugs with a spark plug wrench and remove them.

CAUTION:

The spark plugs may be hot, so be careful.

NOTICE:

Do not allow dirt or anything else to fall through the spark plug holes.

continued overleaf

3. Install new spark plugs and reconnect the spark plug cables in the correct order.

(a) Screw in the new plugs by hand as far as they will go. If necessary, a spark plug wrench may be used for an extension. If a plug does not screw in smoothly, remove it and try again to ensure correct thread engagement. This will prevent the threads from stripping.

(b) Tighten the plugs with a spark plug wrench. Do not over-tighten.

(c) Make sure the cables are installed in the correct order. The connector fastens on by pushing it squarely over the end of the plug.

Spark plug selection

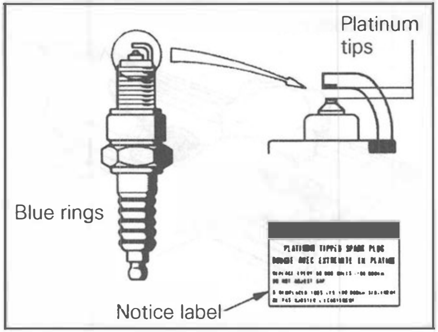
Always use the spark plugs recommended below or equivalent.

NIPPONDENSO	PK20R11
NGK	BKR6EP-11

NOTICE:

Use only the spark plugs of the type specified above. Using other types will cause engine damage, loss of performance or radio noises.

Replacing spark plugs (3VZ-FE engine)

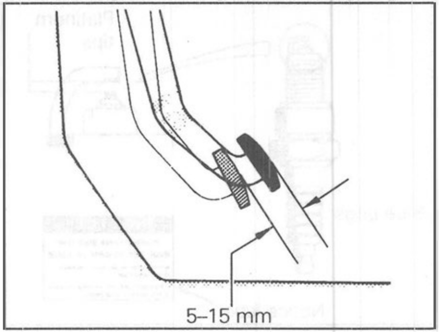


Your engine uses platinum-tipped spark plugs which do not require replacement as frequently as the conventional type. The spark plugs should be replaced at regular intervals in accordance with the maintenance schedule in section 9 .

When the spark plugs need to be replaced, have them replaced by a qualified technician.

The platinum-tipped spark plugs are identified by blue rings on the ceramic. They will last much longer than the conventional type.

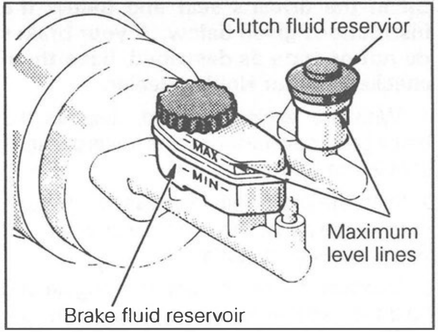
Checking clutch pedal freeplay



Press down lightly on the clutch pedal and measure the distance it moves freely before the clutch resistance is felt. The freeplay should be within the above limits.

If the freeplay is more or less, have your Holden dealer inspect the clutch.

Checking brake and clutch fluid



To check the fluid levels, simply look at the see-through reservoirs. The brake and clutch fluid levels should be within 10 and 5 mm respectively below each maximum level line.

It is a good habit to check these fluid reservoirs every time you check the engine oil level.

It is normal for the brake fluid level to go down slightly as the brake pads wear. So be sure to keep the reservoirs filled.

If any reservoir needs frequent refilling, it may indicate a serious mechanical problem.

If the level is low, add SAE J1703 or FMVSS No. 116 DOT 3 brake fluid to the brake or clutch reservoir.

Remove and replace the reservoir covers by hand. Fill the brake fluid to the dotted line. This brings the fluid to the correct level when you put the cover back on.

Use only newly opened brake fluid. Once opened, brake fluid absorbs moisture from the air and excess moisture can cause a dangerous loss of braking. Also, for this reason you should have the brake fluid drained and replaced periodically.

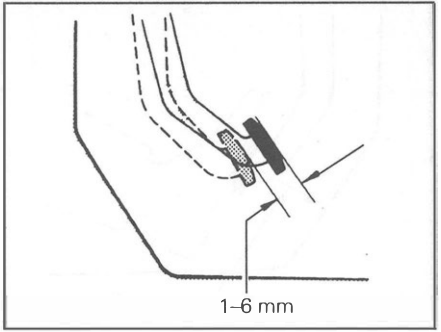
CAUTION:

Use caution in filling the reservoirs because brake fluid can harm your eyes and damage painted surfaces. If fluid gets in your eyes, flush your eyes with clean water.

NOTICE:

If you spill some of the fluid, be sure to wash it off with water to prevent it from damaging parts or paint.

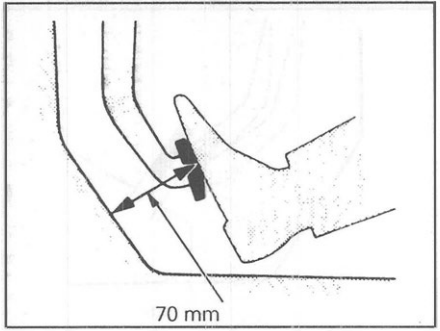
Checking brake pedal freeplay



With the engine stopped, first reduce the vacuum in the booster by depressing the brake pedal several times. Then lightly and slowly press down on the pedal with your fingers and measure the distance it moves before slight resistance is felt.

If the freeplay is more or less than specification, have your Holden dealer adjust the brakes.

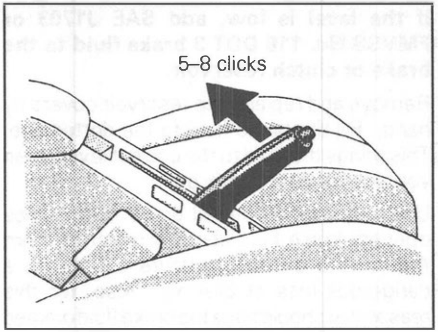
Checking brake pedal clearance



With the engine running, have someone press the brake pedal several times and then press hard on it. The distance from the asphalt sheet to the top surface of the pedal should not be less than specified.

If the clearance is less, have your Holden dealer adjust the brakes.

Checking parking brake adjustment



Count the number of clicks as you slowly pull on the parking brake as far as it will go. The adjustment is correct if you hear the number of clicks specified above.

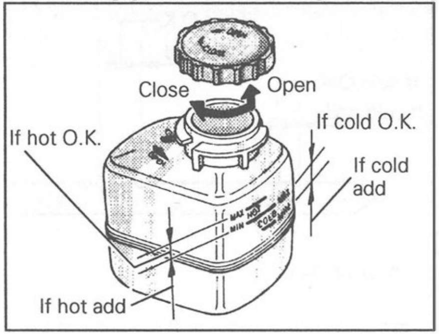
If you count more or less clicks, have the parking brake adjusted by your Holden dealer.

Checking the brake booster

Sit in the driver's seat and follow the instructions given below. If your brakes do not operate as described, have them checked at your Holden dealer.

1. With the engine stopped, depress the brake pedal several times: the travel distance should not change.
2. With the brake fully depressed, start the engine: the pedal should move down a little when the engine starts.
3. Depress the brake, stop the engine and hold the pedal in for about 30 seconds: the pedal should neither sink nor rise.
4. Restart the engine, run it for about a minute and turn it off. Then firmly depress the brake several times: the pedal travel should decrease with each application.

Checking power steering fluid



Check the fluid level through the reservoir. If necessary, add DEXRON®-II automatic transmission fluid.

If the vehicle has been driven around 80 km/h for 20 minutes (a little more in frigid temperatures), the fluid is hot (60°C - 80°C). You may also check the level when the fluid is cold (about room temperature, 10°C - 30°C) if the engine has not been run for about five hours.

Clean all dirt from outside of the reservoir and look at the fluid level. If the fluid is cold, the level should be in the "COLD" range. Similarly, if it is hot, the fluid level should be in the "HOT" range. If the level is at the low side of either range, add DEXRON®-II automatic transmission fluid to bring the level within the range.

To remove the filler cap, turn it counter clockwise and lift up. To reinstall it, turn it clockwise. After replacing the filler cap, visually check the steering box case, vane pump and hose connections for leaks or damage.

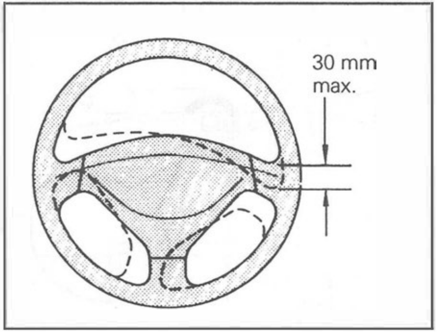
CAUTION:

The reservoir may be hot so be careful not to burn yourself.

NOTICE:

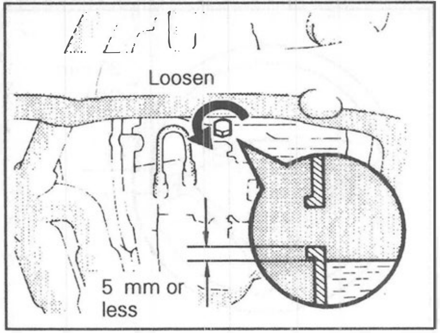
Avoid overfilling, or the power steering could be damaged.

Checking steering wheel freeplay



With the vehicle stopped and the front wheels pointing straight ahead, turn the steering wheel lightly to both sides. If the freeplay is more than specified, have it inspected by your Holden dealer.

Checking manual transmission oil



Remove the filler plug and feel inside the hole with your finger. The oil level should be no more than 5 mm below the bottom edge of the hole. If the level is correct, reinstall the plug and tighten it.

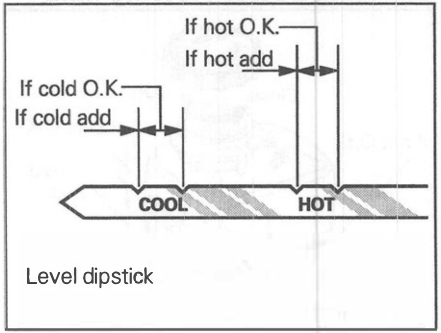
a. Make sure the vehicle is level while making this check.

b. After installing the plug, visually check the transmission for leaks or damage.

If the level is low, there may be a leak in the system. Have your vehicle checked by your Holden dealer as soon as possible.

CAUTION:
Immediately after driving the oil may be hot, so be careful.

Checking automatic transmission fluid



Level dipstick

1. Check the fluid level when the transmission is hot (normal operating temperature).

If the vehicle has been driven over 16 km (24 km in frigid temperatures) and the fluid temperature is 70°C - 80°C, the transmission is hot.

If the vehicle has just been driven for a long time at high speed or in city traffic in hot weather, or if the vehicle has been pulling a trailer, an accurate fluid level cannot be obtained. Check the level after the fluid has cooled down (about 30 minutes).

You may check the level when the transmission is cold. If the vehicle has not been driven for over five hours and the fluid is about room temperature 20°C - 30°C, the transmission is cold. However, checking a cold transmission is to be used for your reference only and the transmission must be checked again for correct level at normal operating temperature.

2. With the vehicle level, first set the parking brake and then start the engine. While the engine is idling, depress the brake pedal and shift the selector lever into each range from "P" to "L" and return to "P". With the engine still idling, check the fluid level and condition on the dipstick.

a. Pull out the dipstick and wipe it clean.

b. Re-insert the dipstick and push it in as far as it will go.

c. Pull the dipstick out and look at the fluid level. If the transmission is hot, the fluid level should be in the "HOT range on the dipstick. Similarly, if it is cold, the level should be in the "COOL" range.

d. While checking the fluid level, also check the condition. If the fluid is black or if it smells burnt, have it changed.

CAUTION:

- **When the engine is running, keep hands and clothing away from the moving fan and engine drive belts.**
- **Be careful not to touch the hot exhaust manifold.**

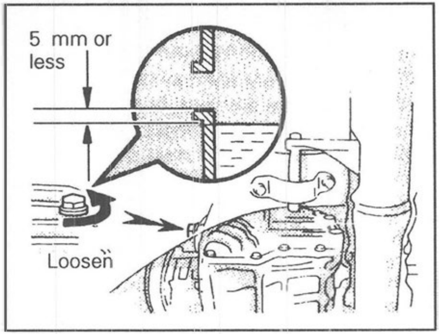
3. If the level is low, add DEXRON®-II automatic transmission fluid.

If the level is at the low side of either range, add DEXRON®-II automatic transmission fluid to bring the level within the range. (Fluid is added through the dipstick tube, using a funnel.)

NOTICE:

Avoid overfilling, or the transmission could be damaged.

Checking differential fluid (vehicles with automatic transmission)



Remove the filler plug and feel inside the hole with your finger. The fluid level should be no more than 5 mm below the bottom edge of the hole. If the level is correct, reinstall the plug and tighten it.

a. Make sure the vehicle is parked on a level spot.

b. After installing the plug, visually check the differential and axle for leaks or damage.

CAUTION:IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII
Immediately after driving the fluid may be hot, so be careful
IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII

If the level is low, add DEXRON®-II automatic transmission fluid until it begins to run out of the filler hole.

Re-install the plug and tighten it.

Checking tyre pressure

Keep your tyre pressures at the proper level.

The recommended cold tyre pressures and sizes are shown on the tyre plaque located on the front right "B" pillar below the door lock.

You should check the tyre pressures every two weeks, or at least once a month. And don't forget the spare!

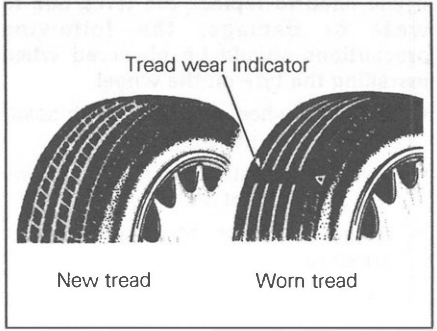
Incorrect tyre pressure can reduce tyre life and make your vehicle less safe to drive. Low tyre pressure results in excessive wear, poor handling, reduced fuel economy and the possibility of blowouts from overheated tyres. Also, low tyre pressure can cause poor sealing of the tyre bead. If the tyre pressure is excessively low, there is the possibility of wheel deformation and/or tyre separation.

High tyre pressure produces a harsh ride, handling problems, excessive wear at the centre of the tyre tread and a greater possibility of tyre damage from road hazards. If a tyre frequently needs inflating, have it checked by your Holden dealer.

The following instructions for checking tyre pressure should be observed:

- The pressure should be checked only when the tyres are cold. If your vehicle has been parked for at least 3 hours and has not been driven for more than 1.5 km since, you will get an accurate cold tyre pressure reading.
- Always use a tyre pressure gauge. The appearance of a tyre can be misleading. Besides, tyre pressures that are even just a few kilopascals (kPa) off the specified pressure can degrade handling and ride.
- Do not bleed or reduce tyre pressure after driving. It is normal for the tyre pressure to be higher after driving.
- Be sure to reinstall the tyre inflation valve caps. Without the valve caps, dirt or moisture could get into the valve core and cause air leakage. If the caps have been lost, have new ones put on as soon as possible.

Checking and replacing tyres



Checking your tyres

Check the tyre tread for the tread wear indicators. If the indicators show, replace the tyres.

The tyres on your Holden have built-in tread wear indicators to help you know when the tyres need replacement. When the tread depth wears to 1.6 mm or less, the indicators will appear. If you can see the indicators in two or more adjacent grooves, the tyre should be replaced. The lower the tread, the higher the risk of skidding.

Check the tyres regularly for damage such as cuts, splits and cracks. If any damage is found, consult with a technician and have the tyre repaired or replaced.

Even if the damage does not appear serious, a qualified technician should examine the damage. Objects which have penetrated the tyre may have caused internal damage.

Any tyres which are over six years old must be checked by a qualified technician even if damage is not obvious.

Tyres deteriorate with age even if they have never or seldom been used.

This also applies to the spare tyre and tyres stored for future use.

Replacing your tyres

When replacing a tyre, use only the same size and construction as originally installed and with the same or greater load capacity.

Using any other size or type of tyre may seriously affect handling, ride, speedometer/odometer calibration, ground clearance and clearance between the body and tyres or snow chains.

continued overleaf

CAUTION:

Do not mix radial, bias belted, or bias-ply tyres on your vehicle. It can cause dangerous handling characteristics, resulting in loss of control.

Never use second-hand tyres on your Holden.

Using tyres whose previous history is unknown is a risk.

Holden recommends all four tyres, or at least both of the front or rear tyres, be replaced at a time as a set.

See "If you have a flat tyre", section 4 for tyre change procedure.

When a tyre is replaced, the wheel should always be balanced.

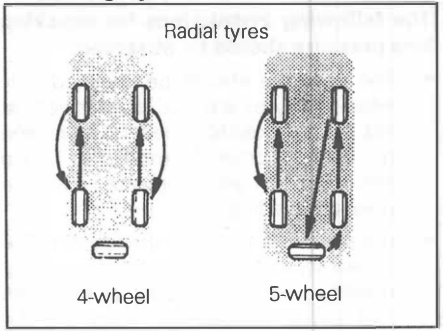
An unbalanced wheel may affect vehicle handling and tyre life. Wheels can get out of balance with regular use and should therefore be balanced occasionally.

When replacing a tubeless tyre, the air valve should also be replaced with a new one.

If you need to replace the tyres due to wear or damage, the following precautions should be observed when installing the tyre on the wheel.

- Lubricate wheel and beads with soapy water or tyre mounting lubricant.
- To properly seat tyre on rim, inflate tyre to a maximum of 310 kPa.
- Adjust inflation to recommended pressure.

Rotating tyres



To equalize the wear of your tyres, rotate the tyres every 10000 km.

Including the spare tyre in your rotation will help your tyres to last longer.

See "If you have a flat tyre", section 4 for tyre change procedure.

When rotating tyres, check for uneven wear and damage. Abnormal wear is usually caused by incorrect tyre pressure, improper wheel alignment, out-of-balance wheels or severe braking.

Snow Chains

Regulations regarding the use of snow chains vary according to state or type of road, so always check them before installing chains.

To prevent chain damage to your car:

1. Install the chains as tightly as possible and re-tighten them after driving about 500 metres.
2. Do not exceed 50 km/h, or the chain manufacturer's recommended speed limit.
3. Drive carefully avoiding bumps, holes, and sharp turns which may cause the vehicle to bounce.
4. Follow the instructions of the chain manufacturer.

Replacing wheels

When to replace your wheels

If you have wheel damage such as bends, cracks or heavy corrosion, the wheel should be replaced.

If you fail to replace damaged wheels, the tyre may slip off the wheel or they may cause loss of handling control.

Wheel selection

When replacing wheels, care should be taken to ensure that the wheels are replaced by ones with the same load capacity, diameter, rim width and offset.

Correct replacement wheels are available at your Holden dealer.

A wheel of a different size or type may adversely affect handling, wheel and bearing life, brake cooling, speedometer/odometer calibration, stopping ability, headlight aim, bumper height, vehicle ground clearance and tyre or snow chain clearance to the body and chassis.

Replacement with used wheels is not recommended as they may have been subjected to rough treatment or high mileage and could fail without warning. Also, bent wheels which have been straightened may have structural damage and therefore should not be used. Never use an inner tube in a leaking wheel which is designed for a tubeless tyre.

DO-IT-YOURSELF MAINTENANCE

Electrical components

- Checking battery condition and fluid level
- Battery recharging precautions
- Checking and replacing fuses
- Replacing the wiper blades
- Adding washer fluid
- Replacing semi-sealed beam headlight bulbs
- Replacing light bulbs

Checking battery condition and fluid level

CAUTION:

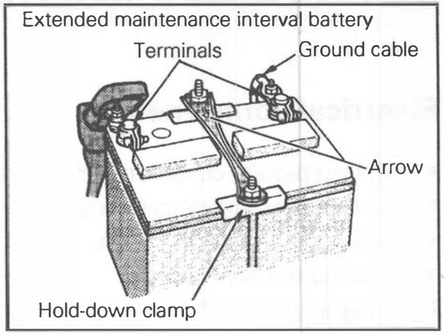
BATTERY PRECAUTIONS

The battery produces an inflammable and explosive hydrogen gas.

- **Do not cause a spark from or near the battery with tools.**
- **Do not smoke or light a match near the battery.**
- **The electrolyte contains poisonous and corrosive sulphuric acid.**
- **Avoid contact with eyes, skin or clothes.**
- **Never ingest electrolyte.**
- **Wear protective safety glasses when working on or near the battery.**
- **Keep children away from the battery.**

EMERGENCY MEASURES

- **If electrolyte gets in your eyes, flush your eyes with clean water for at least 15 minutes and get immediate medical attention. If possible, continue to apply water with a sponge or cloth while enroute to the medical office.**
- **If electrolyte gets on your skin, thoroughly wash the contacted area. If you feel pain or burn, get medical attention immediately.**
- **If electrolyte gets on your clothes, there is a possibility of it soaking through to your skin, so immediately take off the exposed clothing and follow the previously described procedure, if necessary.**
- **If you happen to swallow electrolyte, drink a large quantity of water or milk. Follow with milk of magnesia, beaten raw egg or vegetable oil. Then go immediately for emergency help.**



Extended maintenance interval battery

1. Check the battery for corroded or loose connections, cracks or loose hold-down clamps.

(a) If the battery is corroded, wash it off with a solution of warm water and baking soda. Coat the outside of the terminals with grease to prevent further corrosion.

(b) If the connections are loose, tighten the clamp bolts, but do not over-tighten.

(c) If the battery hold-down clamp is loose tighten it, only enough to keep the battery firmly in place. Over-tightening may damage the battery case. Ensure that the arrow on the battery hold down clamp is pointing toward front of the vehicle.

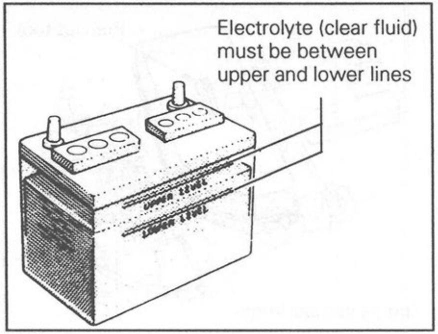
NOTICE:

Be sure the engine and all accessories are off before performing maintenance.

Remove the ground cable first and reinstall it last.

Be careful not to cause a short circuit with tools.

On batteries other than extended maintenance interval types, take care that no solution gets into the battery when washing.


Electrolyte (clear fluid) must be between upper and lower lines
UPPER LEVEL
LOWER LEVEL

2. Check the electrolyte level as shown above. If the level is low, add distilled water.

(a) When checking the electrolyte level, look at all six cells, not just one or two.

(b) Remove the filler/vent caps and replenish the battery with distilled water.

(c) After replenishing, be sure to securely re-tighten the filler/vent caps.

NOTICE:

Do not overfill the battery or the electrolyte may squirt out of the battery during periods of heavy charging causing corrosion or damage.

Battery recharging precautions

During recharging, the battery is producing hydrogen gas.

Therefore, before recharging:

1. Remove the filler/vent caps if performing a quick charge (6 A or above but max. 15 A). Removing the filler/vent caps is not necessary when performing a slow charge (under 5 A).

2. Be sure the power switch on the recharger is off when connecting the charger cables to the battery and when disconnecting them.

3. If recharging with the battery installed on the vehicle, be sure to disconnect the ground cable.

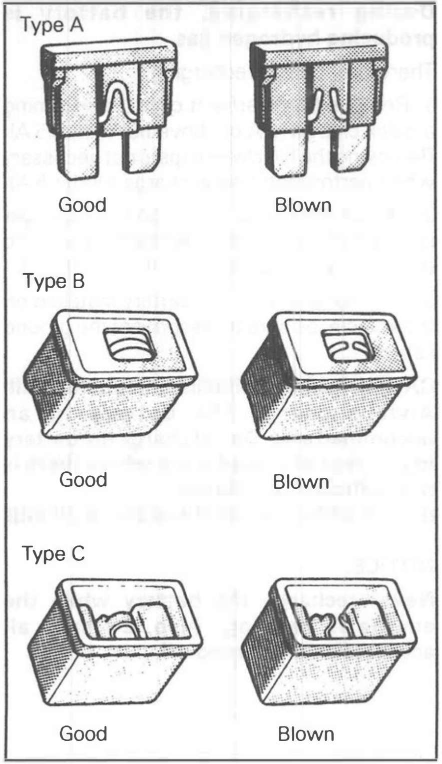
CAUTION:

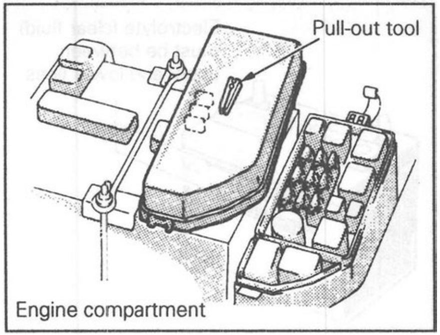
Always charge the battery in an unconfined area. Do not charge the battery in a garage or closed room where there is not sufficient ventilation.

NOTICE:

Never recharge the battery while the engine is running. Also, be sure all accessories are turned off.

Checking and replacing fuses





If the headlights or other electrical components do not work, check the fuses. If any of the fuses are blown, they must be replaced.

See "Fuse locations" in section 7 "Introduction" for locations of the fuses.

Turn the ignition switch and inoperative component off. Pull a suspected fuse straight out and check it.

Determine which fuse may be causing the problem. The lid of the fuse box shows the name of the circuit for each fuse. See section 8 for the functions controlled by each circuit.

Type A fuses pull out by using the pull-out tool.

If you are not sure whether the fuse has blown, try replacing the suspected fuse with one that you know is good.

If the fuse has blown, push a new fuse into the clip.

Install only a fuse with an amperage rating designated on the fuse box lid.

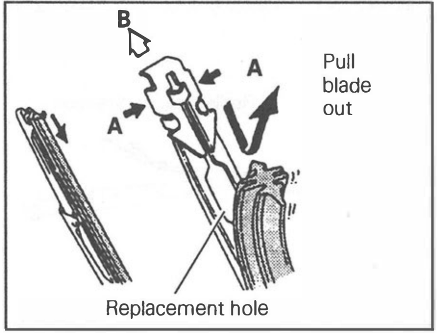
If you cannot use one of the same amperage, use one that is lower, but as close as possible to the same rating. If the amperage is lower than that specified, the fuse might blow out again but this does not indicate anything wrong. Be sure to get a correct fuse as soon as possible and return the substitute to its original clip.

It is a good idea to purchase a set of spare fuses and keep them in your vehicle for emergencies.

If the new fuse immediately blows out, there is a problem with the electrical system. Have your Holden dealer correct it as soon as possible.

CAUTION:
Never use a fuse with a higher than specified amperage rating or any other object in place of a fuse. It may cause extensive damage and possibly fire.

Replacing the front wiper blades



When the wipers no longer clean adequately, the wiper blades may be worn or cracked requiring replacement.

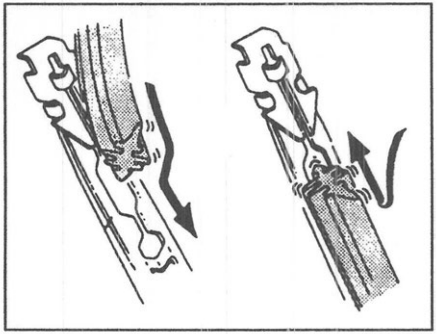
1. Lift the wiper blades clear off the windscreen by placing the arms in the "lock-back" position.

2. Push the bottom end of the wiper rubber inward until it is free of the metal backing strip retaining clip and you can see the replacement hole.

3. Pull the wiper blade out of the replacement hole.

Note: If metal backing strip needs replacing, squeeze retaining clip at point 'A' and, whilst still squeezing, pull clip in direction of 'B'. The backing strip can then be removed.

continued overleaf



4. To install a new rubber, insert the end of the rubber into the replacement hole and work the rubber along the slot in the blade backing strip.

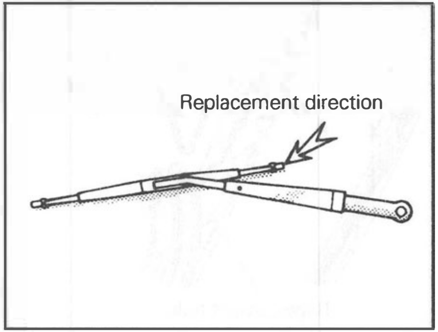
5. Once all of the rubber is in the frame slot, pull it over the backing strip retaining clip and spread the rubber evenly along the strip.

6. Fold the wiper arm back to the working position.

NOTICE:

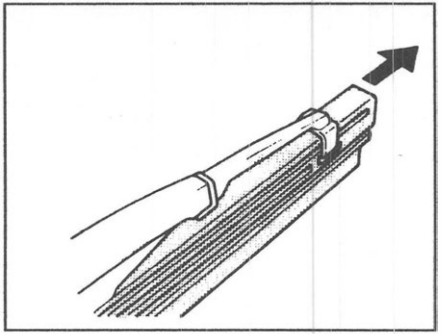
Be careful not to scratch the glass surface with the wiper frame.

Replacing the rear wiper blades - Wagon



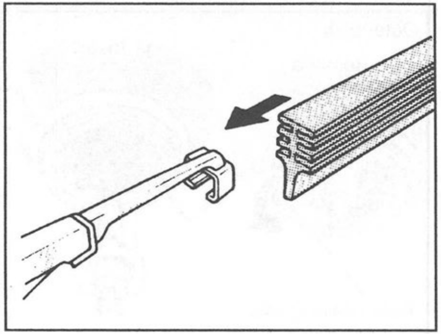
When the wipers no longer clean adequately, the wiper blades may be worn or cracked requiring replacement.

1. Lift the wiper blades clear off the windscreen by placing the arms in the "lock-back" position.



2. Pull the wiper blades out of the wiper frame from the replacement direction end.

3. Remove the steel rails from either side of the rubber and transfer them to the rubber blades.



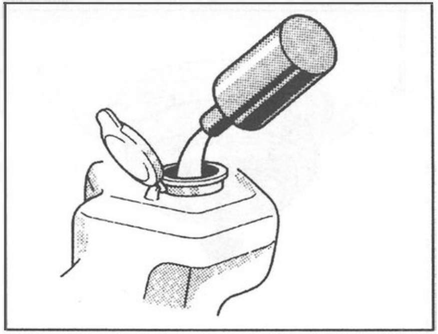
4. Insert the new rubber blade end without locating lugs into the end of the frame in the replacement direction indicated and work the rubber blade along the slot.

5. Fold the wiper arm back to the working position.

NOTICE:

Be careful not to scratch the glass surface with the wiper frame.

Adding washer fluid



If the windscreen washer does not operate, the windscreen washer tank could be empty. Check the tank and, if necessary, add washer fluid.

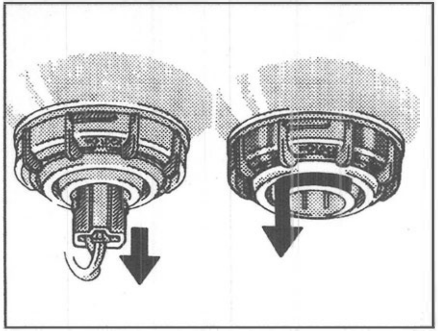
Tap water or clean rain water is a satisfactory washer fluid. However, if you drive during freezing conditions, the washer water might freeze. To ensure this does not occur, add a washer fluid that contains anti-freeze. Always read and follow the instructions given on the windscreen washer fluid container. Normal household detergents are not suitable as they may damage the washer pump and rubber wiper blade elements.

Check the washer jets regularly for cleanliness and alignment.

NOTICE:

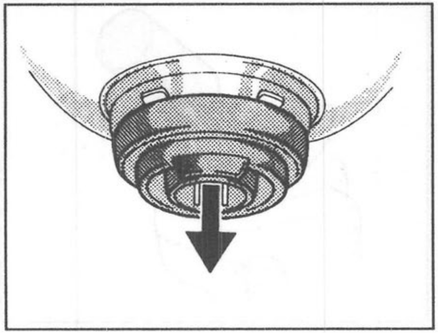
Do not use engine anti-freeze because it may damage the paintwork. Do not operate the windscreen wipers on a dry windscreen or scratching may result.

Replacing semi-sealed beam headlight bulbs

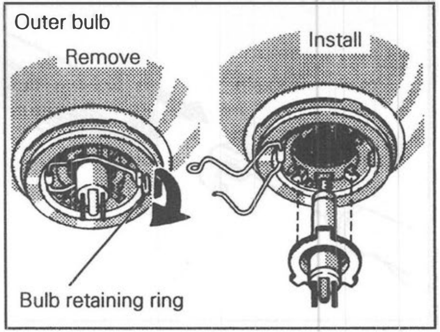


1. Turn off the ignition switch, headlight switch and open the hood. Unplug the connector. Turn the plastic cover counter clockwise and remove it.

If the connector is tight, wiggle it.



2. Remove the rubber cover.



3. Outer bulb: Release the bulb retaining spring and remove the bulb. Install a new bulb and the bulb retaining spring.

To install a bulb, align the tabs of the bulb with the cutout of the mounting hole.

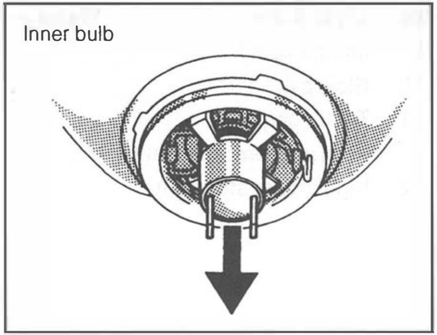
Bulb selection

Use a bulb with 60/55W (H4).

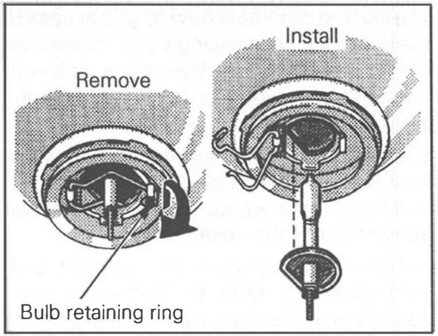
NOTICE:

Use only a bulb of the type specified above.

Do not touch the glass part of the bulb with bare hands. If you do, clean the glass with alcohol and clean rag.



Inner bulb: Remove the socket.



Release the bulb retaining spring and remove the bulb. Install a new bulb and the retaining spring. Insert the socket.

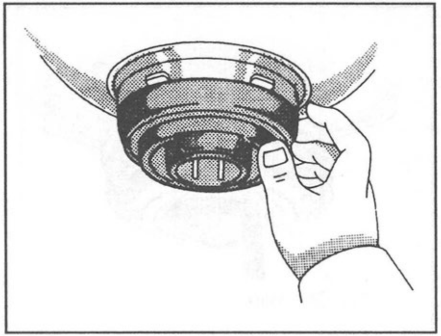
Bulb selection

Use a bulb with 55W.

NOTICE:

Use only a bulb of the type specified above.

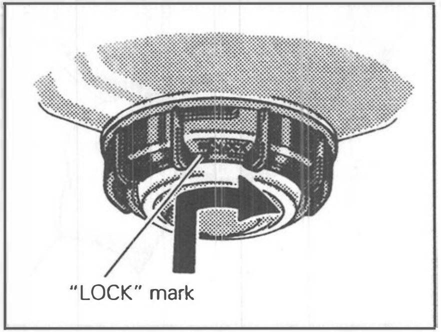
Do not touch the glass part of the bulb with bare hands. If you do, clean the glass with alcohol and clean rag.



4. Install the rubber cover on the boss.

Make sure the rubber cover fits snugly on the connector and the headlight body.

continued overleaf



5. Install the plastic cover with the "LOCK" mark upward and turn it clockwise. Insert the connector.

After replacement, have the headlight aim checked by your Holden dealer.

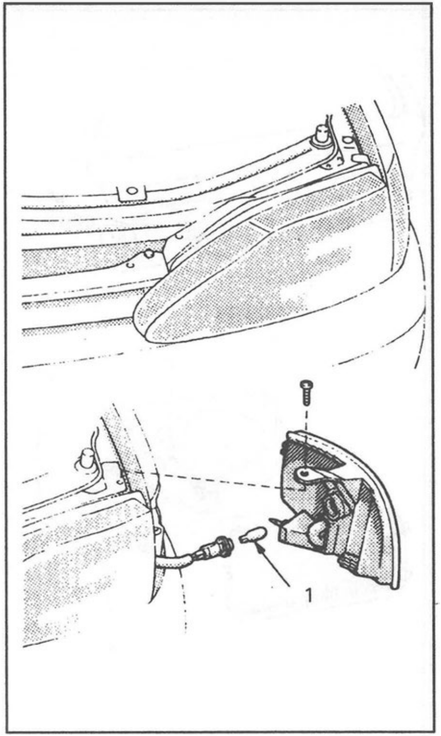
Replacing light bulbs

The illustrations show how to gain access to the bulbs. When replacing a bulb, make sure the light switch is off. Use only a bulb with the same wattage rating. The wattage ratings are given below.

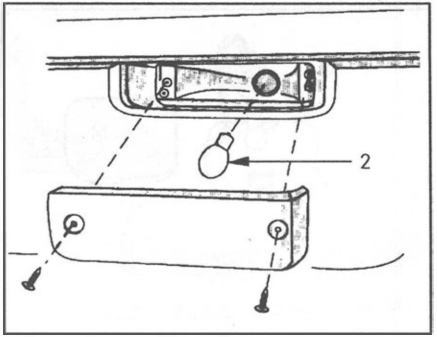
The single end bulbs are removed by pressing in and turning counter-clockwise. The double-end bulbs (*) or wedge base bulbs (**) pull straight out of the holder clips.

NOTE: For information on headlight bulb wattage rating, refer to "Replacing semi-sealed beam headlight bulbs" in this section.

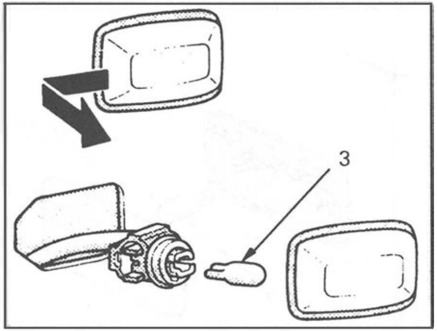
No.	Light Bulbs	Wattage
1	Parking lights**	5
2	Front turn signal lights	21
3	Side turn signal lights**	5
4	Rear turn signal lights	21
5	Stop and tail lights	21/5
6	Back-up lights	21
7	Door courtesy lights**	3.8
8	Licence plates lights**	5
9	Interior light*	8
10	Glovebox light**	1.2
11	Trunk room/ Luggage compartment light*	5
12	High mount stop light**	18



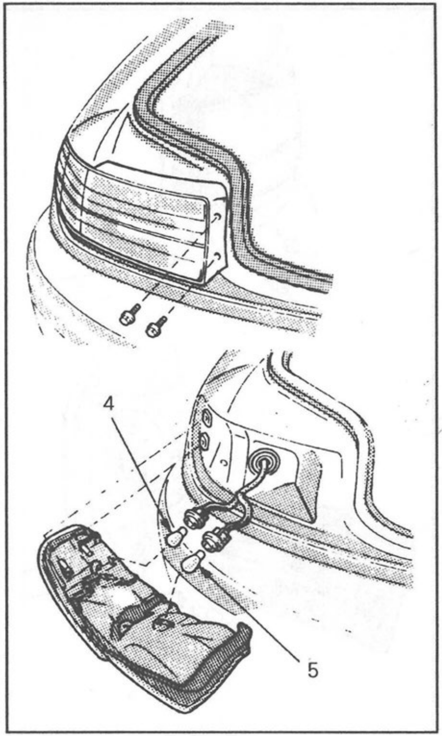
Parking lights



Front turn signal lights



Side turn signal lights



Sedan: Rear turn and stop/tail lights

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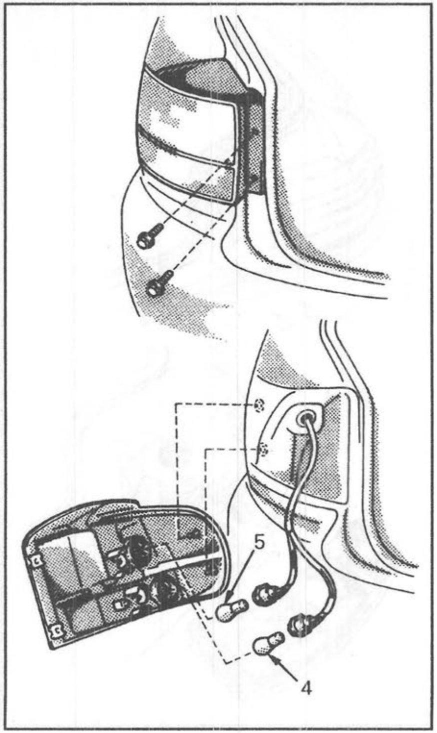
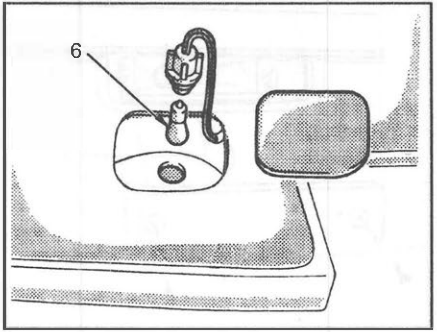
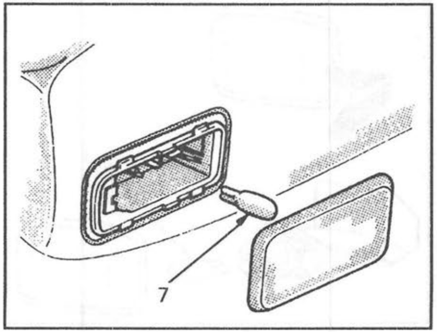


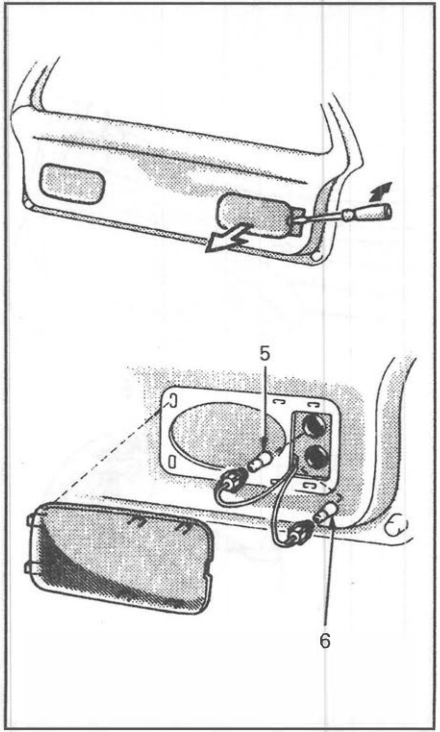
Wagon: Rear turn and stop/tail lights



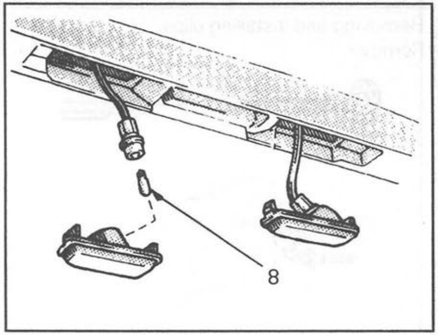
Sedan: Back-up lights



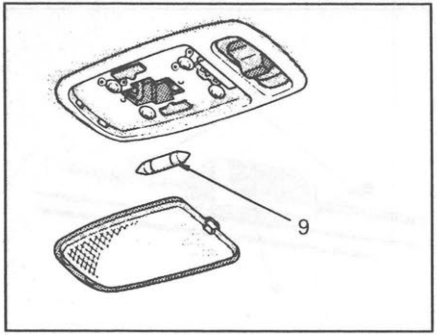
Sedan: Door courtesy lights (if fitted)



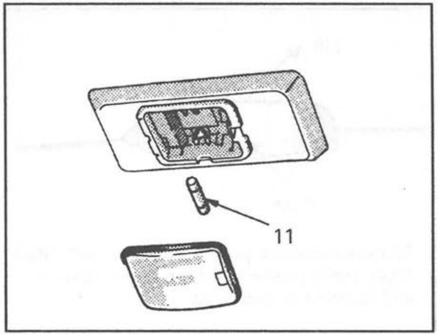
Wagon: Back-up and stop/tail lights



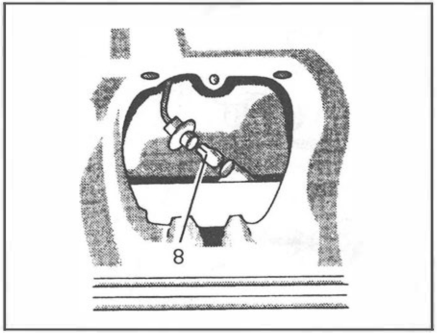
Wagon: Licence plate lights



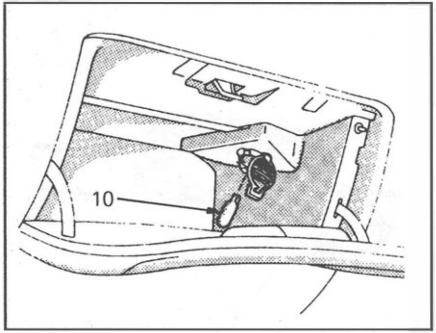
Interior light



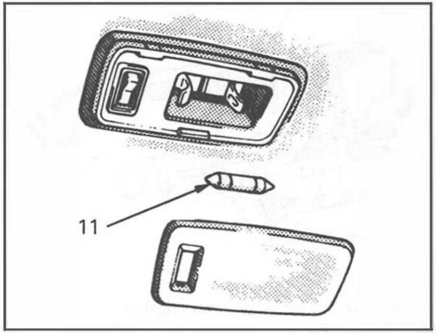
Sedan: Trunk room light



Sedan: Licence plate lights



Glovebox light (if fitted)



Wagon: Luggage compartment light

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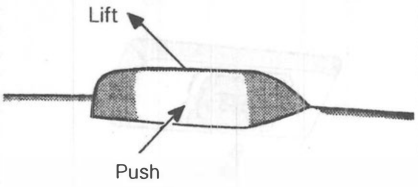
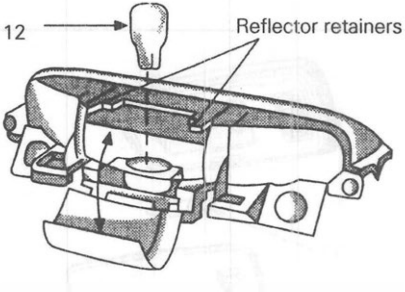
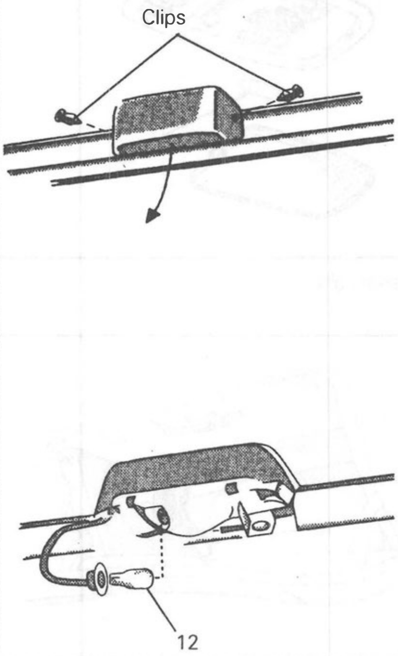


To remove cover, push in direction indicated. Then, while pushing, lift the cover upward and forward as indicated.

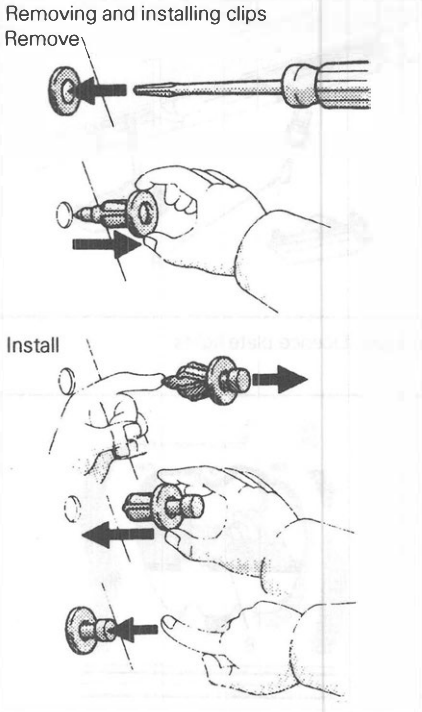

12
Reflector retainers

Unclip reflector and swing down

Sedan: High mount stop light



Wagon: High mount stop light (for clip removal and replacement procedure, refer diagram opposite)


Removing and installing clips
Remove
Install

SPECIFICATIONS

- Dimensions
- Engine
- Fuel
- Service specifications
- Tyres
- Fuses

Dimensions

Sedan

Overall length	mm	4725
Overall width	mm	1770
Overall height	mm	1400
Wheelbase	mm	2620
Front track	mm	1550
Rear track	mm	1500

Wagon

Overall length	mm	4795
Overall width	mm	1770
Overall height	mm	1505
Wheelbase	mm	2620
Front track	mm	1550
Rear track	mm	1500

Engine

Models:

5S-FE and 3VZ-FE

Type:

5S-FE engine

4 cylinder in line, 4 cycle, petrol engine

3VZ-FE engine

6 cylinder V type, 4 cycle, petrol engine

Bore and stroke (mm):

5S-FE engine

87.0 X 91.0

3VZ-FE engine

87.5 X 82.0

Displacement, cm^3:

5S-FE engine	2164
3VZ-FE engine	2959

Fuel

Fuel type:

Unleaded petrol with the following research octane number (RON) or higher.

5S-FE engine	91
3VZ-FE engine	91

Fuel tank capacity, 70L

Service specifications
ENGINE

Valve clearance (engine cold), mm:

5S-FE engine	
Intake	0.19-0.29
Exhaust	0.28-0.38
3VZ-FE engine	
Intake	0.13-0.23
Exhaust	0.27-0.37

Spark plug type:

5S-FE engine	
NIPPONDENSO	PK20R11
NGK	BKR6EP-11
3VZ-FE engine	
NIPPONDENSO	PQ20R
NGK	BCPR6EP-11

Spark plug gap, mm: 1.1

Ignition timing:

10° BTDC

(with terminals E_1 - TE_1 of check connector connected)

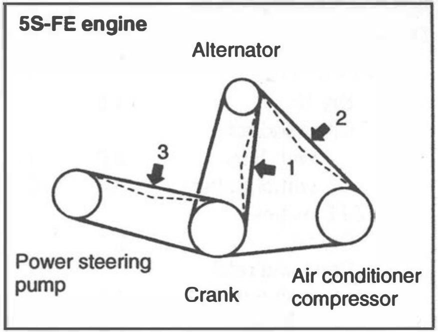
Drive belt deflection with 98 N thumb pressure (used belt), mm

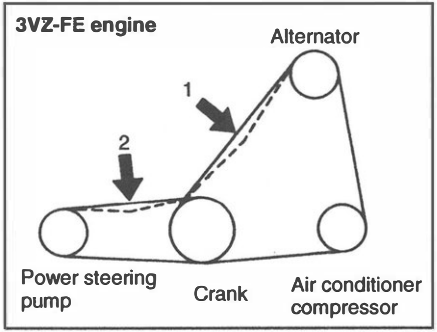
5S-FE engine

1. 13-17
2. 9-11
3. 10-13

3VZ-FE engine

1. 11-13.5
2. 10-12


5S-FE engine
Alternator
2
3
1
Power steering pump
Crank
Air conditioner compressor

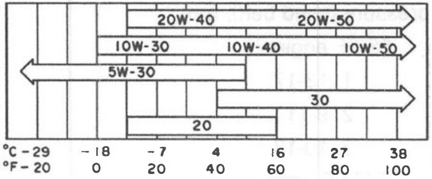

3VZ-FE engine
Alternator
1
2
Power steering pump
Crank
Air conditioner compressor

ENGINE LUBRICATION

Oil capacity, L	
5S-FE engine	
Dry fill	4.6
Drain and refill	
with filter	3.6
without filter	3.4
3VZ-FE engine	
Dry fill	5.1
Drain and refill	
with filter	4.3
without filter	4.1

Oil grade (API): SG or better.

Recommended oil viscosity (SAE):



Temperature range anticapated before next oil change

COOLING SYSTEM

Total capacity, L	
5S-FE engine	
Manual transmission	6.5
Automatic transmission	6.6
3VZ-FE engine	8.9

Coolant type:

Holden approved coolant.

(ethylene-glycol type antifreeze, anticorrosive)

Concentration:

From pre-delivery service to the first coolant change (60,000km or 36months), maintain coolant concentration at 30% coolant and 70% clean demineralised or distilled water.

At first coolant change and subsequent changes and for top up, maintain coolant concentration at 50% coolant and 50% clean demineralised or distilled water.

(Do not use alcohol type antifreeze.)

BATTERY

Specific gravity reading at 20°C

1.260	Fully charged
1.160	Half charged
1.060	Discharged

Charging rates:

Quick charge	15 A max.
Slow charge	5 A max.

CLUTCH

Pedal freeplay, mm:

5-15

Fluid type:

SAE J1703 or FMVSS No. 116 DOT 3

MANUAL TRANSMISSION

Oil capacity, L

5S-FE engine	2.6

Oil type:

5S-FE engine

Multipurpose gear oil API GL-3

(If it is impossible to obtain multipurpose gear oil API GL-3, you may use multipurpose gear oil API GL-4)

Recommended viscosity:

5S-FE engine

SAE 75W-90

AUTOMATIC TRANSMISSION

Fluid capacity, L

3VZ-FE engine	Dry fill	6.5
	Drain and refill	2.5
5S-FE engine	Dry fill	5.6
	Drain and refill	2.5

Fluid type:

Automatic transmission fluid DEXRON®-II

DIFFERENTIAL (automatic transmission)

Fluid capacity, L

3VZ-FE engine	0.8
5S-FE engine	1.6

Fluid type:

Automatic transmission fluid DEXRON®-II

BRAKES

Minimum pedal clearance when depressed, mm:

70

Pedal freeplay, mm:

1-6

Parking brake adjustment: 5-8 clicks

Fluid type:

SAE J1703 or FMVSS No. 116 DOT 3

STEERING

Wheel freeplay:

Less than 30 mm

Power steering fluid type:

Automatic transmission fluid DEXRON®-II

Tyre size and pressure

Refer to the tyre plaque on front right 'B' pillar below the door lock.

Wheel nut torque, 103 Nm

Gross vehicle mass (G.V.M.) kg

Engine	Sedan	Wagon
5S-FE	1830	1935
3VZ-FE	1920	2120

Maximum towing loads

Trailer with brakes:

5S-FE engine 1100kg

3VZ-FE engine 1200 kg

Trailer without brakes: 500 kg

Tow ball vertical load: 80 kg

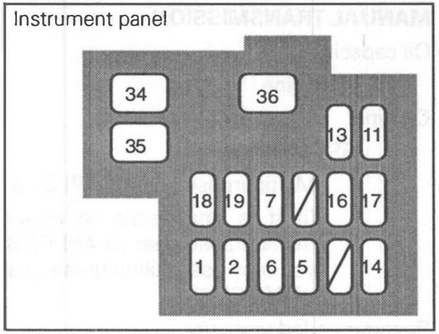
Note:

Tow ball load is specified under the following conditions and assumptions:

(a) No specified load equalisation device or towing coupling is used.

(b) That the tow ball vertical load when added to the loaded weight of the towing vehicle is not greater than the specified G.V.M. of the vehicle.

Fuses



Type A fuses

1. ECU-IG 15A: Electronically controlled automatic transmission system, cruise control system, anti-lock brake system

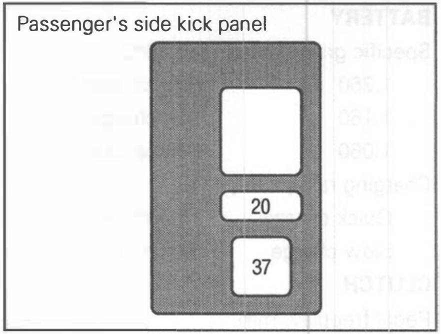
2. GAUGE 10A: Gauges and meters, back-up light, air conditioning control system, rear window defogger, warning lights, engine and ECT ECU

3. Not used

4. Not used

5. WIPER 20 A: Windshield wipers and washers

6. TURN 7.5 A: Turn signal lights and emergency flashers



7. IGN 7.5 A: Engine and ECT ECU, charging system

11. ECU-B 15 A: Anti-lock brake system, engine and ECT ECU

13. STOP 20 A: Stop lights, cruise control system, anti-lock brake system, engine and ECT ECU

14. CIG 15 A: Audio system, clock, cigarette lighter, exterior mirror

15. Not used

16. TAIL 15 A: Tail lights, parking lights, licence plate lights, instrument panel light

17. Not used

18. SPARE: Spare fuse

19. SPARE: Spare fuse

20. A/C 10 A: Air conditioning control system

21. STARTER 10 A: Starter system, engine and ECT ECU

22. ALT-S 7.5 A: Charging system

23. EFI 15 A: Engine and ECT ECU, fuel pump

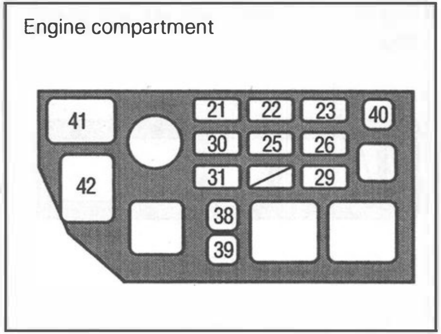
25. DOME 20 A: Audio system, interior light, clock, ignition switch light, trunk room light

26. HAZ-HORN 15 A: Turn signal lights, emergency flasher, horn

29. AM2 30 A: Igniter

30. HEAD (RH) 15 A: Right-hand headlight

31. HEAD (LH) 15 A: Left-hand headlight



Type B Fuses

34. P/W 30 A: Power windows, power door lock control system

35. DEFOG 40 A: Rear window defogger

36. AM1 40 A: Starting system, cigarette lighter, wipers, gauges, turning lights, engine ECT ECU

37. HTR 40 A: Air conditioning control system

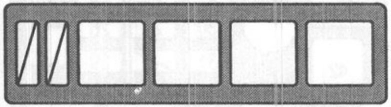
38. CDS 30 A: Condenser cooling fan

39. FAN 30 A: Radiator cooling fan

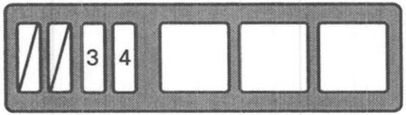
40. ST MAIN 30 A: Starting system, engine and ECT ECU

continued overleaf

Engine compartment (vehicles with 5S-FE engine)



Engine compartment (vehicles with 3VZ-FE engine)



Type C fuses

41. ALT 100 A: Charging system, stop lights, heater, defogger, anti-lock brake system

42. A.B.S. 60 A: Anti-lock brake system

WARRANTY AND SERVICE

- Warranty Certificate
- Warranty Questions and Answers
- HoldenWise
- Holden Dealer List
- Customer Assistance
- Service Information
- Vehicle Maintenance Schedule
- Approximate Service Times
- Intermediate Service Records
- Service Coupons
- Change of Address

NEW VEHICLE WARRANTY CERTIFICATE

General Motors - Holden's Automotive Ltd A.C.N. 006 893 232, hereinafter Holden's, warrants that it will make good without charge, any defect which appears in the vehicle identified in the vehicle identification certificate, found on the inside front cover of this handbook.

Provided, for the Vehicle Warranty

1. the defect has been notified to an authorised Holden Dealer or Service Dealer:
   (a) before the vehicle has travelled a distance of 50,000 km or,
   (b) within 24 months of the date of delivery of the vehicle to the first retail purchaser (or in the case of a demonstrator vehicle within 24 months of the date when it was first placed into service by the Dealer)

   whichever comes first, AND for the Powertrain Warranty

   the defect has been notified to an authorised Holden Dealer or Service Dealer:
   (c) before the vehicle has travelled a distance of 100,000 km or,
   (d) within 36 months of the date of delivery of the vehicle to the first retail purchaser (or in the case of a demonstrator vehicle within 36 months of the date when it was first placed into service by the Dealer)

   whichever comes first, AND
2. the vehicle has been returned to an authorised Holden Dealer or Service Dealer

   AND

   the Dealer has determined that the defect complained of is one of workmanship and is not caused by
   (a) misuse or abuse of the vehicle such as by racing, rallying, overloading, etc., or by neglect
   (b) operation of the vehicle after it is known to be defective
   (c) accident or deliberate act
   (d) atmospheric fallout or flood, hail, salt, etc.
   (e) failure to carry out proper maintenance service
   (f) use of incorrect types and grades of fuel, oil or lubricants
   (g) alteration or modification of the vehicle by any party not authorised by Holden's
   (h) the fitting of parts or accessories not marketed by Holden's
   (i) any work carried out on the vehicle by someone other than an authorised Holden Dealer or Service Dealer,

BY THE DEALER (or as otherwise decided by Holden's) MAKING GOOD THE DEFECT BY REPAIR OR, AT THE OPTION OF HOLDEN'S, BY REPLACEMENT.

NEW VEHICLE WARRANTY CERTIFICATE CONT.

Excluded from the 24/50 Vehicle Warranty are:

defects in tyres (these being warranted by their manufacturers), batteries (which are covered for 12 months) and services such as engine tuning, brake adjustment, replacement of air/oil/fuel filters, wiper rubbers etc, which are required as part of normal vehicle maintenance.

Covered by the 36/100 Powertrain Warranty are:

1. **ENGINE**
   - a) **BASIC ENGINE ASSEMBLY**
     Intake manifold; exhaust manifold; super charger; turbo charger; intercooler; seals and gaskets; mountings; flywheel; E.F.I. components; carburettor/throttle body; fuel pump; injection pump; vacuum pump; injector nozzles; hoses and pipes for vacuum and EGR and PCV and fuel systems; fluid coupling; water pump.
   - b) **EMISSION CONTROL**
     Air pump; air injection manifold; air suction manifold and valve; throttle positioner; modulator; catalytic converter; positive crank case ventilation system; air injection by air suction system; emission control system; exhaust gas recirculation system.
   - c) **ENGINE RELATED COMPUTERS**
     Engine control computer; emission control computer; E.F.I. computer; sensors.
2. **TRANSMISSION** Transmission; transaxle; transfer case assembly; torque converter; transmission control computer; mountings; seals and gaskets.
3. **CLUTCH** Cover Assembly
4. **FRONT / REAR AXLE** Axle Housing, Drive Shaft, Constant Velocity Joint, Propeller Shaft, Axle Hub, Axle Shaft, Bearing, Hub Bolts, Nuts, Oil Seals.
5. **SAFETY RESTRAINT** Seat Belts, Sensor Switch, Air Bag, Computer.

Excluded from the 36/100 Powertrain Warranty (but included in the 24/50 Vehicle Warranty) are:

Radiator; heater core; shock absorbers; springs and suspension mounting components; exhaust system; ignition coil/module; distributor; alternator; starter motor; fuel tank; transmission external linkages; wheels; instrumentation switches; spark plug leads plus any other components not specifically listed in Powertrain components shown above.

This Warranty applies only to vehicles operated in Australia and is given to the person who is entitled to possession of the vehicle whether as owner, lessee or otherwise and is given in addition to all rights conferred by law on that person.
Owners of vehicles operated outside Australia should consult their local dealer regarding the warranty applicable to their vehicles.

HOLDEN'S PARTS AND ACCESSORIES WARRANTY

Holden's warrants in respect of Holden's Parts and Accessories that it will make good by repair or at its option by replacement any defect occurring in any such Holden's parts and accessories within 12 months from the date of acquisition or in the case of a Holden's part or accessory installed in a vehicle by a Holden Dealer or Service Dealer, within 24 months or before such vehicle has travelled a distance of 50,000 km from the date of installation, whichever first occurs.

Excluded from this warranty are maintenance items such as filters, spark plugs, wiper blades, etc. which require replacement as part of normal vehicle maintenance.

PARTS AND ACCESSORIES WARRANTY EXPLANATION

i ACCESSORIES - NEW VEHICLE

Accessories installed by a Holden Dealer or authorised Service Dealer to the new vehicle at the time of purchase are covered by the Holden's New Vehicle warranty of 24 months or 50,000 km (whichever occurs first) from date of fitment.

ii PARTS AND ACCESSORIES - INSTALLED DURING NEW VEHICLE WARRANTY PERIOD

Parts and/or accessories installed by the Dealer or authorised Service Dealer during the new vehicle warranty period are covered by the unexpired portion of the new vehicle warranty. After expiry of the new vehicle warranty, the parts and accessories warranty will apply up to 24 months/50,000 km (whichever occurs first) from date of fitment.

iii PARTS AND ACCESSORIES - INSTALLED AFTER EXPIRY OF NEW VEHICLE WARRANTY

Parts and/or accessories installed by the Dealer or Service Dealer after expiration of the new vehicle warranty are covered by the parts and accessories warranty of 24 months or 50,000 km (whichever occurs first) from date of fitment.

iv PARTS AND ACCESSORIES - PURCHASED AT RETAIL OR TRADE

Parts and/or accessories purchased at trade or retail and installed by other than the Dealer or Service Dealer are warranted for 12 months from date of purchase (parts and accessories only). In these instances it is necessary to preserve proof of sale records to support warranty claims.

v PARTS AND ACCESSORIES WARRANTY EXCLUSIONS

Defects in tyres, these being warranted by their manufacturers, batteries which are covered for 12 months and maintenance service items, such as spark plugs, oil/air/fuel filters, coolant/inhibitor, wiper rubbers, brake pads, linings and discs, clutch linings, refrigerant, drive belts, distributor ignition points, bulbs and fuses, which are warranted against manufacturing defect existing at time of installation. Where this Handbook specifies a schedule for replacement of parts, such parts are covered by parts warranty for the extent for the specified maintenance service interval.

WARRANTY QUESTIONS AND ANSWERS

This section is designed to assist you in understanding the Holden's Warranty provided with your new car. The following are some of the most frequently asked questions, for which detailed answers have been provided.

Q 1. How do I go about obtaining Holden's Warranty Service?

It is the responsibility of the Selling Dealer to provide Holden's Warranty service, therefore you should take your car to the Selling Dealer whenever Holden's Warranty service is needed. However, if this is not possible, you may go to any other Authorised Holden Dealer. The details recorded inside the front cover of this handbook will be required by the Dealer.

Q 2. What should I do if my car becomes unsafe or inoperative as a result of a defect which is covered by the Holden's New Vehicle Warranty?

You should contact the nearest Authorised Holden Dealer or Holden's Customer Assistance Service (refer further in this section), as soon as possible, and arrange for that Dealer to carry out the required Holden's Warranty Service.

Q 3. What should I do if, in an emergency, Holden's Warranty service is required and an Authorised Holden Dealer is not available to provide such service at the time?

If, in an emergency, a repair, replacement or adjustment (covered by the Holden's New Vehicle Warranty) is required to enable your car to be operated safely and it is not practical for you to go to an Authorised Holden Dealer, the service (to the extent that it is necessary to enable your car to be operated safely) may be performed by any other qualified mechanic or repairer. A claim for the reasonable cost may be made through the Authorised Holden Dealer who would normally provide you with Holden's Warranty Service. You must also take your car to the Authorised Holden Dealer for inspection of the service and/or completion of any required Holden's Warranty Service, as soon as possible.

Note: During normal business hours you should seek authorisation from your nearest Authorised Holden Dealer or Holden's Customer Assistance Service (refer further in this section), prior to repairs being commenced.

Q 4. Are damage or injury, loss of time, inconvenience, commercial or other direct or indirect loss covered by the Holden's Warranty?

No, these items are not covered. Holden's warranty only covers the repair, replacement or adjustment of those parts of your car which are found to be defective in materials or workmanship. No other types of claim for compensation of any kind, even if the same resulted from a consequence of a defect in materials or workmanship in your car, will be recognised under the Holden's New Vehicle Warranty.

You may have rights under the law to claim compensation outside of the Holden's New Vehicle Warranty, but any claim based on those rights should be separately pursued.

continued overleaf

WARRANTY QUESTIONS AND ANSWERS CONT.

Q 5. Will I have to pay for maintenance costs during the Warranty Period?

Maintenance costs are not covered by the Holden's New Vehicle Warranty. However, the scheduled 1,000 km service specified in this handbook is provided 'labour free'. Lubricants and parts used for this service will, however, be charged to the owner. That is provided that your car has been operated under normal operating conditions and also that no modification (other than a modification made by, or at the direction of, Holden's) has been made to your car. The Maintenance Schedules in this handbook specify the *minimum* maintenance required for your car operating under normal conditions.

The Maintenance items (except where they are required as a result of defects in materials or workmanship) for which you will have to pay for include:

★ Engine tune-up, including spark plugs replacement.
★ Replacement of all filters, engine and other belts, hoses, wiper blades, clutch linings.
★ Cleaning or flushing of fuel, coolant, brake, engine, transmission, differential, power steering etc., after the 1,000 km service.
★ Carbon and sludge removal.
★ Maintenance servicing of emission control system devices.
★ Adding to (or replacing) lubricants.
★ Adding to (or replacing) air conditioning refrigerant, after the 1,000 km service.
★ Any necessary adjustments to drive belts, transmissions, clutch, park brake etc.
★ Wheel balancing - after the 1,000 km service.
★ Wheel alignment.
★ De-dusting or de-glazing of brake linings or pads - after the 1,000 km service.
★ Brake lining wear or damage.
★ Brake disc pad or disc wear.
★ Battery re-charging.
★ Paint, bright metal finish and trim, due to normal deterioration.
★ Body panel adjustment - after the 1,000 km service.
★ Door, or bonnet lock adjustments.
★ Glass or channel adjustments - after the 1,000 km service.
★ Body rattle, squeaks and general tightening of bolts, fastenings and fittings - after the 1,000 km service.
★ Chipped glass or breakage.
★ Torn or damaged floor mats or carpets.
★ Normal wear and tear to trim components.

WARRANTY QUESTIONS AND ANSWERS CONT.

Q 6. Are my tyres covered by the Holden's New Vehicle Warranty?

No. The tyres fitted to your car are covered by a separate warranty provided by the tyre manufacturer. Any Authorised Holden Dealer will assist you by discussing any queries which you might have with respect to the tyre manufacturer's warranty with the tyre manufacturer's representative.

Q 7. Are Holden's parts and accessories covered by warranties?

If you buy a Holden's part or accessory from an Authorised Holden Dealer it will be warranted by that Dealer, under the Holden's parts and accessories Warranty, against defects in materials or workmanship for 12 months, from the date of purchase. In the case of a Holden's part or accessory which has been installed in a car by a Holden Dealer, it will be warranted for 24 months or 50,000 km (whichever occurs first) from the date of installation.

Defects in tyres (these being warranted by their manufacturers), batteries (which are covered for 12 months) and maintenance items such as filters, spark plugs, wiper blades and brake pads/linings require replacement as part of normal maintenance. Such replacements are not the subject of this warranty.

Q 8. Will I have to pay for any costs or expenses in connection with the provision of Holden's Warranty service?

All parts and labour used in carrying out Holden's Warranty Service at the premises of the Servicing Dealer are free of charge. Whenever Holden's Warranty service is to be carried out by the Servicing Dealer it is your responsibility to deliver your car to the Servicing Dealer's premises.

If, as a result of a defect which is covered by the Holden's New Vehicle Warranty, your car cannot be driven safely and you arrange for the nearest Authorised Holden Dealer to carry out the required Holden's Warranty Service, Holden's will accept reasonable towing costs to move your car to the nearest Holden Dealer's premises. Before employing a towing company, contact the nearest Holden Dealer and/or Holden's Customer Assistance Service to obtain guidance.

Q 9. Would my car's engine benefit from fuel additives, oil additives or coolant additives not marketed by Holden's ?

The use of break-in oil, tune-up compounds, friction-reducing compounds and other supplemental additives are not recommended; their use will not only increase operating costs, but may also be detrimental to the operation of your car.

HOLDENWISE

ONE FEATURE EVERY CAR MAKER WOULD LOVE TO BE ABLE TO OFFER.

HOLDEN, A LOT MORE THAN JUST A CAR

As you'll soon discover, your new Holden is a lot more than just a car..... because every Holden comes with one very special feature, HoldenWise.

HoldenWise was created to offer Holden owners the best Australia wide customer care system possible. To do this we've drawn on all the technical resources and service skills of Holden's. However, the key to our service is and always will be, people, with over 5,000 Holden service and parts specialists spread across the country. Thanks to them, we can offer HoldenWise Customer care at participating Holden Dealers with complete confidence.

HOLDEN SPECIALISTS

HoldenWise technicians have been specially trained by the factory and have the experience in service and parts skills necessary to work on your car. As you can imagine Holden today are a lot more sophisticated than they used to be, which means specialist service is essential.

Knowing Holdens so well, our technicians know exactly how long each service takes, which is why Holden dealers can offer fixed price servicing.

HOLDENWISE FIXED PRICE SERVICING

HoldenWise has eliminated one of the big worries about car services, not knowing what the bill will be. Every participating Dealer service centre offers fixed price servicing. You need only ask and you'll be given a quote on how much the job will cost before it's started. So there are no nasty surprises when paying the bill.

Of course, if during the service, a problem is discovered, you'll be telephoned immediately before any more work is done.

You may be comforted to know that all participating Dealer work is covered by a workmanship warranty.

HOLDENWISE WORKMANSHIP WARRANTY

All services and repairs are covered by a 6 month/10,000 km Dealer warranty on workmanship. If a fault arises during that period, due to the service, your Holden Dealer will fix it. But workmanship isn't the only thing that is guaranteed.

HOLDENWISE

QUALITY SERVICE & PARTS

We guarantee our service workmanship for a period of 6 months or 10,000 kilometres.

GUARANTEE

HOLDENWISE

HOLDEN PARTS WARRANTY

The parts used in HoldenWise services are manufactured and tested to the same high standards as the originals, so Holden quality parts carry the same 24 month/50,000 km warranty when fitted by the Dealer. Naturally the warranty does not apply to normal maintenance parts like oil filters and spark plugs.

Whilst on the subject of parts, how often have you been told you'll have to wait a while until the parts can be found? Thanks to the HoldenWise network, it's something you're unlikely to encounter at your Holden Dealer.

THE HOLDENWISE NETWORK

Most HoldenWise Dealer service and parts centres are computer linked through to the factory, which means you'll never have to wait an eternity for the right parts to be found.

What's more, with around 350 Dealers nationwide, you'll never be far from the same high standard of service.

HOLDEN ACCESSORIES

Holden accessories are designed and approved as an integral part of your car so you know they will fit and function precisely. When installed by the Holden Dealer to your new car, Holden accessories are covered by the Holden's warranty of 24 months or 50,000 km for your added protection.

CUSTOMER ASSISTANCE

Finally, we suggest you read Holden's Customer Assistance Service information contained further in this section.

UNAUTHORISED STATEMENTS IN RELATION TO HOLDEN'S PRODUCTS

No Holden Dealer or other person is authorised or permitted to give or make any statement assertion or undertaking in relation to the quality, performance, characteristics, descriptions or fitness for any purpose of any Holden's product or in connection with the supply of any Holden's product, which is at variance with any written statement assertion or undertaking on any of these subjects given or made by Holden's in its published sales literature, and the Company does not accept any such unauthorised action.

continued overleaf

3 YEAR / 24 HOUR ROADSIDE SERVICE

OUR COMMITMENT TO YOUR SATISFACTION

HoldenWise Roadside Service is part of the unequalled commitment of Holden's to provide total motoring satisfaction.

From the moment delivery is made, our aim is to provide the finest possible ownership experience, from design through manufacturing to servicing, and now beyond to the open road.

HoldenWise Roadside Service is your key to worry free motoring - one that covers you from your driveway to the open road, Australia-wide.

We hope the need never arises, but if it does, we'll be there to help through HoldenWise Roadside Service.

HOW DOES HOLDENWISE ROADSIDE SERVICE WORK?

When you decide to buy a new Holden, you will have made a wise purchase decision and you will become a member of an exclusive club of Holden owners, covered by a 24 hour a day, 365 day a year, professional service for 3 years.

HoldenWise Roadside Service is provided by General Motors-Holden's Automotive Ltd., and delivered by the collective resources of the Australian Automobile Clubs and Associations (the constituents of the Australian Automobile Association) the 'AAA'.

WHICH CARS ARE COVERED BY THE SERVICE?

As of 1st November 1993 all new Holden passenger and light commercial vehicles are covered for 36 months service.

HoldenWise Roadside Service is extended to private and business cars, taxis, rental companies, all government and fleet operators.

WHAT WILL HOLDENWISE ROADSIDE SERVICE DO FOR ME?

HoldenWise Roadside Service is designed to get you mobile after your car has become disabled on a constructed road that is trafficable to normal two wheel drive vehicles.

Your car must be disabled due to (non-collision related) mechanical failure/driver fault i.e. flat tyre, flat battery, locked out of the car, or have simply run out of petrol.

Where permanent repairs are either not possible or practicable, temporary repairs will be carried out, or the car towed to a Holden Dealer or approved repairer.

HOLDENWISE

WHEN DO THE BENEFITS BEGIN?

Cover begins the moment a Holden vehicle is purchased. An Interim Registration card entitles you to immediately receive all the benefits of HoldenWise Roadside Service.

WHERE CAN I GET HOLDENWISE ROADSIDE SERVICE?

The professional service of HoldenWise Roadside Service is available to you at home, or at the roadside, anywhere in Australia, should you need it.

WHAT HAPPENS IF MY VEHICLE NEEDS MAJOR REPAIRS?

In the case of a breakdown where the car cannot be made driveable or where temporary repairs may void the warranty, HoldenWise Roadside Service will provide towing to the nearest Holden Dealer, or if not geographically practicable, to the local 'AAA' constituent service facility. It is the responsibility of the owner to seek Holden's approval before any repairs are undertaken by a non Holden Dealership. This action will ensure the warranty remains valid.

During an after-hours' breakdown and where the metropolitan Holden Dealer or 'AAA' constituent's approved repairer is not open, the car may be towed to any other location nominated by the driver not exceeding 20 kilometres from the point of breakdown.

IS THERE ANY MEMBERSHIP OR JOINING FEE?

No, you will not be required to pay any fees. Every new Holden passenger car and light commercial vehicle owner is eligible for HoldenWise Roadside Service for 36 months.

WHAT WILL HOLDENWISE ROADSIDE SERVICE COST ME?

Materials, fuel and spare parts supplied during the service must be paid for at the time of the service. The service personnel attending will issue a receipt for these expenses. Reimbursement of expenses covered by Holden's warranty can be claimed by contacting the local Holden Dealer.

continued overleaf

HOLDENWISE

WHAT HAPPENS IF I SELL MY VEHICLE?

Holdenwise Roadside Service stays with the car, so if you sell your car during the 36 month period, it is still eligible for the service. The new owner simply registers for the service by using the change of ownership form supplied in the member's kit.

ROADSIDE 'ULTRA' - PRESTIGE CARS

Holden Caprice, Statesman, Calais or Calibra receive the additional cover of 'Roadside Ultra'. This additional cover provides the new owner with all the benefits of HoldenWise Roadside Service along with some very valuable extras, including accommodation, alternative transportation, rental car and Australia-wide vehicle recovery.

HSV - HOLDEN SPECIAL VEHICLES

Purchasers of Holden Special Vehicles automatically qualify for the coveted HSV Gold Lion package. This package provides the Gold Lion Member with all the benefits of HoldenWise Roadside Service and where applicable, the enhancement package 'Roadside Ultra'.

HOW DO I CALL FOR SERVICE?

Simply call **008 817 100**, the HoldenWise toll free number from anywhere in Australia
The HoldenWise Roadside Service Kit contains full details of the service and any limitations that may apply. In the meantime further information is available from the toll free Holden's Customer Assistance Service line, on **008 033 349**.

AUTHORISED HOLDEN DEALERS

N.S.W. Metropolitan

ARNCLIFFE	Suttons Motors Arncliffe Pty Ltd - 93 Princes Highway
ASHFIELD	Muirs Motors (Ashfield) Pty Ltd - 252 Parramatta Road
BALGOWLAH	James Langfield Holden - 164 Condamine Street
BANKSTOWN	Princeton Holden - 466 Chapel Road
BLACKTOWN	West City Holden - 120~128 Sunnyholt Road
CABRAMATTA	John Abrahams Holden - 266~284 Hume Highway
CAMPBELLTOWN	Paul Wakeling Holden - Cnr Blaxland & Campbelltown Rds
CASTLE HILL	Windsor Road Holden - Cnr Victoria Ave & Windsor Road
CHULLORA	Suttons Motors (Chullora) Pty Ltd - Cnr Hume Hwy & Waterloo Road
CROW'S NEST	New Hunter Holden - 446 Pacific Hwy
DEE WHY	Peninsula Holden - Cnr May & Mooramba Roads
GORDON	Sundell Holden -Cnr 836 Pacific Hwy & McIntyre Street
HOMEBUSH	Suttons Motors Homebush Pty Ltd - 112 Parramatta Road
HOMEBUSH	Gilbert & Roach - 167~173 Parramatta Road
LAKEMBA	Boyded Holden Lakemba - 817 Canterbury Road
LIVERPOOL	A.C. McGrath & Co Pty Ltd - 411~419 Hume Highway
MIRANDA	Greg Ball Holden - 1~3 Kiora Road
NEWPORT	Esso Car Care Centre (Mobil) - 340 Barrenjoey Road
PARRAMATTA	Boyded Holden Parramatta - 65 Church Street
PENNANT HILLS	Barry Smith Holden - 351~355 Pennant Hills Road
PENRITH	Triway Holdings Pty Ltd - 39~47 Henry Street
ROCKDALE	Peter Terry Holden - 571 Princes Hwy
RYDE	Hunter Holden - 603~605 Victoria Road
SPRINGWOOD	Springwood Holden - 15 Ferguson Road
ST LEONARDS	New Hunter Holden - 4 Herbert Street
ST. MARY'S	John Young Holden - Cnr Glossop & Harris Streets
WAITARA	Suttons Motors Waitara Pty Ltd - 90 Pacific Hwy
WINDSOR	Hawkesbury Valley Holden - 18 Macquarie Street

N.S.W. Country

ALBURY	Brian White Holden - 647~657 Dean Street
ARDLETHAN	Carr's Engineering - 4 Mirrool Street
ARMIDALE	New State Motors - 103 Rusden Street
BALLINA	Quayside Motors - Pacific Highway
BARHAM	Hall's Motors Pty Ltd - 44 Noorong Street
BATHURST	Bathurst Motors Pty Ltd - 54 Durham Street
BATLOW	Robert Broadhurst Holden - Pioneer Street
BEGA	South Coast Holden - 247 Carp Street
BELLINGEN	E.H.H. Raymond Pty Ltd - Broadway
BELMONT	Challenge Holden - 444 Pacific Highway
BLAYNEY	Alan May Automotive Services - 98 Adelaide Street
BOMBALA	Delcott Engineering Pty Ltd - Maybe Street
BOOROWA	Boowowa Auto Repairs - 40 Marsden Street
BOURKE	Bourke Auto Electrical & Mechanical - 15 Richard Street
BREWARRINA	Lukas Holden - Bathurst Street
BROKEN HILL	Donlee Motors Pty Ltd - Cnr Galena & Rakow Streets
CAMDEN	Paul Wakeling Pty Ltd - 15 Camden Road
CANOWINDRA	Canowindra Motors - Gaskill Street
CARDIFF	Brian Kelly Holden 35~39 MacQuarie Road
CASINO	McKinnon Holden - 142 Barker Street
CESSNOCK	Geoff Boyd Holden - 173~175 Wollombi Road
COBAR	Cobar Motors Pty Ltd - Barton Street
COFF'S HARBOUR	Geoff King Holden - Cnr Pacific Hwy & Thompson Road
COOLAMON	Coolamon Motors - Cowabbie Street
COOMA	Summit Holden - 66~70 Sharp Street
COONABARABRAN	Allan Cooper Holden - John Street
COONAMBLE	Moody's Motors - 37 Aberford Street
COOTAMUNDRA	Jenkins Garage - 111 Wallendoon Street
COROWA R.W.E.	Fraser & Co Pty Ltd - 218 Honour Avenue
COWRA	Waugoola Motors Pty Ltd - Kendal Street
CROOKWELL	Crookwell Autos -114 Goulburn Street
DENILIQUIN	Burchfield Bros & Co -112~114 End Street

N.S.W. Country

DORRIGO	Phil Noble Motors - 46~48 Hickory Street
DUBBO	John Kierath - 54 Bourke Street
DUNGOG	Turner Holden - 248 Dowling Street
EDEN	Ron Doyle -113 Imlay Street
FINLEY	Riverina Garage Finley -104 Murray Street
FORBES	Paddison & Co - Cnr Rankin St & Court Lane
GILGANDRA	Allan Cooper Holden - 106 Warren Road
GLEN INNES	Glen Severn Holden - 167 Grey Street
GLOUCESTER	Grahame's Garage Pty Ltd -1 Park Street
GOSFORD	Noble Holden - Pacific Highway
GOULBURN	Geissler Motors - 279~298 Auburn Street
GUNDAGAI	Smith Motors - Sheridan Street
GRAFTON	Ken Casson Holden - 71~75 Spring Street
GRENFELL	Terry Carroll Motors Pty Ltd - 40 Alexandra Street
GRIFFITH	Leo Franco Holden -164~166 Yambil Street
GULARGAMBONE	Gulargambone Motors - Bourbah Street
GUNNEDAH	Namoi Valley Motors - 48 Barber Street
GUNNING	Bailey's Garage Pty Ltd - Yass Street
GUYRA	Burgess Garage Pty Ltd - 131~143 Bradley Street
HARDEN	Ginty & O'Leary - Cnr Station & Albury Streets
HAY	Royce Curtis Motors - 168 Lachlan Street
HOLBROOK	Lieschke Motors Pty Ltd - Albury Street
INVERELL	Gaukroger Sales Pty Ltd - Vivian Street
JERILDERIE	Jerilderie Motors - Jerilderie Street
KANDOS	Chrisfield Holden - 11 Angus Street
KATOOMBA	Katoomba Holden - 136 Great Western Highway
KEMPSEY	Thoroughgood Motors - 118~132 Belgrave Street
KIAMA	Glen Fulton Holden - 35~41 Collins Street
KYOGLE	O & A Holden - 128~134 Summerland Way
LEETON	John Ryan Holden - 47 Pine Street
LISMORE	John Chant Motors Pty Ltd - 21~27 Carrington Street
MACKSVILLE	Eastland Auto Centre - 18~22 Cooper Street

N.S.W. Country

MACLEAN	O'Halloran Motors - 175 River Street
MAITLAND	Heritage Holden - 557~567 High Street
MOREE	Keith Haddad Holden - Cnr Boston & Heber Streets
MORUYA	Surfair Holden - 88 Vulcan Street
MOSS VALE	Vagg & Partners Holden - 160 -162 Argyle Street
MULLUMBIMBY	Tony Carsburg Holden - 2 Argyle Street
MUDGEE	Ross Granata Motors - 47~55 Market Street
MURWILLUMBAH	Tweed Motors Murwillumbah - 29 Prospero Street
MUSWELLBROOK	Upper Hunter Motors Pty Ltd - 116 Bridge Street
NARRABRI	Allan Cooper Holden - 181 Maitland Street
NARRANDERA	C. & S. Coelli - 6 Boundary Road
NARROMINE L.E.	Stanley Pty Ltd - Dandaloo Street
NEWCASTLE	Young & Green Pty Ltd - 745 Hunter Street
NOWRA	Glendon Motors Holden - 301~313 Princes Highway
ORANGE	Canobolas Holden - 348 Summer Street
PARKES	Go Motors of Parkes - Cnr Mitchell & Clarinda Streets
PEAK HILL	S.Leary & Sons Pty Ltd - Mingelo Street
PORT MACQUARIE	Todd Holden - 16~20 Clarence Street
QUIRINDI	Browning Motors - 82 Henry Street
SCONE	Upper Hunter Motors (Scone) - 91 Kelly Street
SINGLETON	Lancaster Holden - 80 John Street
TAMWORTH	Kensell's Holden - Cnr Bourke St & Kable Ave
TAREE	Hardes Auto House - 61 Manning Street
TEMORA	Rod Lovering Holden - 2 Stockinbingal Road
TENTERFIELD	Sexton & Green (Sales & Service) Pty Ltd -148 Rouse Street
TUMBARUMBA	Broadhurst Autos - Albury Street
TUMUT	Nancarrow Holden - 35 Fitzroy Street
TWEED HEADS	Tweed Motors Pty Ltd - 75~79 Pacific Highway
ULLADULLA	Johnston Holden - 150 Princes Highway
WAGGA	Wagga Motors Pty Ltd - 32 Dobney Avenue
WALCHA	Bowden's Garage Pty Ltd - Derby Street
WALGETT	Walgett Garage Pty Ltd - 81 Wee Waa Street

WALLA WALLA	D.E. Lieschke & Son Pty Ltd - Commercial Street	**N.S.W. Country**
WARIALDA	Roger Moore - Hope Street	
WARILLA	Wilson's Warilla Pty Ltd - 29 Shellharbour Road	
WARREN	Fuller Bros - Dubbo Street	
WEE WAA	Allan Cooper Holden - Rose Street	
WELLINGTON	Gersbach's Garage Pty Ltd - 92 Lee Street	
WEST WYALONG	West Wyalong Motors - 183 Main Street	
WOLLONGONG	Dwyers City Holden - 31~33 Crown Street	
WYONG	Barry Robertson Holden - 172 Pacific Highway	
YASS	Bill Nesbitt Holden - 221 Comur Street	
YOUNG	Harden & Geelan Holden - 48 Boorowa Street	
BELCONNEN	Gerald Slaven Holden - Josephson Street	**A.C.T.**
BRADDON	Beazley & Bruce Holden - 44 Mort Street	
PHILLIP	Commonwealth Motors Pty Ltd - 158 Melrose Drive	
BERWICK	Barry Bourke Holden - 755 Princes Highway	**Vic. Metropolitian**
BUNDOORA	Watson Holden - 413 Grimshaw Street	
BURWOOD	Penfold Holden - 63 Burwood Highway	
CAULFIELD	Booran Holden - 1234 Glenhuntly Road	
CHELSEA	Harrison Holden - 370 Nepean Highway	
CHELTENHAM	Booran Holden - 1212 Nepean Highway	
DANDENONG	Daryl Shave Holden - 25 Lonsdale Stree	
ELSTERNWICK	Reg Hunt Holden - 77 Nepean Highway	
ESSENDON	Preston Motors (Essendon) Pty Ltd - 205~211 Keilor Road	
FAWKNER	Mantello Holden - 1263 Sydney Road	
FERNTREE GULLY	Neilson Holden F.T.G. - 980 Burwood Highway	
FOOTSCRAY	Alan Mance Holden - 435 Barkly Street	
FRANKSTON	Noel Gould Holden - 140 Dandenong Road	
GEELONG	R & B Smith Holden - 510 Moorabool Street	
GEELONG	Winter & Taylor (Sales) Pty Ltd - 23 Cavendish Street	

GLEN WAVERLEY	Geoff Brady Holden - 565~577 Springvale Road	**Vic. Metropolitian**
HASTINGS	Westernport Holden - 2147 Flinders Road	
LILYDALE	Noel Dight Holden - 344 Main Street	
MORNINGTON	John Collins Holden - 976 Nepean Highway	
OAKLEIGH	Garry & Warren Smith - 1575 Dandenong Road	
PRESTON	Ralph D'Silva Holden - 573-603 High Street	
RINGWOOD	Patterson Cheney Holden - 45~57 Maroondah Highway	
SOUTH MELBOURNE	Patterson Cheney Holden - 168 Sturt Street	
SOUTH YARRA	Penfold Holden - 681 Chapel Street	
SUNSHINE	Kevin Dennis Holden - 272 Ballarat Road	
WERRIBEE	Ballan Holden - 56 Princes Highway	
WEST MELBOURNE	Reg Hunt Holden - 577 King Street	
ALEXANDRA	Alexandra Tyre & Hire - 79 Grant Street	**Vic. Country**
ARARAT	David Reid Motors - High Street	
BAIRNSDALE	The Big Garage - 199 Main Street	
BALLARAT	Peter Amor Motors - 2~26 Mair Street	
BENALLA	Arnott's Motors - 88~90 Bridge Street	
BENDIGO	Ron Poyser Holden - Cnr High & Myrtle Streets	
BIRCHIP	R.L. Bales P/L - 38 Cumming Avenue	
BOORT	Jaron Motors - 55 Godfrey Street	
CAMPERDOWN	Camperdown Auto Parts - 96 Manifold Street	
CASTERTON	Coxons Holden - 139 Henty Street	
COBRAM	Neville Mustica Motors - Murray Valley Hwy	
COLAC	Parker Bros. Motor Co - 224 Murray Street	
CORRYONG	Boers Motors - 88~90 Hanson Street	
DAYLESFORD	K.R. Little Pty Ltd - Vincent Street	
DIMBOOLA	Westerfield Motors Pty Ltd - 64 Lloyd Street	
DONALD	O.A. Shilton & Sons Pty Ltd - 5 Wood Street	
ECHUCA	Echuca Motors - 148 Murray Valley Highway	
EUROA	Croxford Holden - 41 Clifton Street	

Vic. Country

FOSTER	Ray Dower Motors - 78 Main Street
HAMILTON	Peter Sandow Motors Pty Ltd - 261 Gray Street
HOPETOUN	Hopetoun Motors - 78 Lascelles Street
HORSHAM	Ivan Morrow Motors Pty Ltd - 22 O'Callaghans Street
KANIVA	Kaniva Motors - 82 Commercial Street
KOOWEERUP	Gray Blakey Holden - Station Street
KORUMBURRA	Peter Dunlevie Holden - 42 Commercial Street
KYABRAM	D'Alberto Holden - 60 McEwen Road
KYNETON	Mollison Motors Pty Ltd - 167 Mollison Street
LEONGATHA G	leeson Holden - 37~43 Bair Street
MAFFRA	Knight Paterson Holden - Johnson Street
MANSFIELD	Christopher & Kirley Automotive Services - Early Street
MARYBOROUGH	Graham Jacka Holden - 35 Nolan Street
MILDURA	Stuart & Harrison (Sales) Pty Ltd - 24~32 Deakin Avenue
MORTLAKE	W. Christian (Mortlake) Pty Ltd - 107 Dunlop Street
MURRAYVILLE	Peers Motors - McKenzie Street
NATHALIA	BHB Motors - 6 Blake Street
NHILL	Ivan Morrow Motors Pty Ltd - 71~73 Nelson Street
NULLAWIL	Nullawil Motors & General Engineers - Calder Highway
ORBOST	Merlin Motors - Stanley Street
PORTLAND	Reynolds Holden - Henty Highway
QUAMBATOOK	Quambatook Auto Services - 32 Gutherie Street
ROCHESTER	Bruce Hocking Motors Pty Ltd - 71 Moore Street
ROBINVALE	Stuart & Harrison (Sales) Pty Ltd - cnr Herbert & George Streets
RUTHERGLEN	Jasper Bros Pty Ltd - 62 Main Street
SALE	Keith Boyd Holden - 273 York Street
SEALAKE	Paddy Smith Holden - Calder Highway
SEYMOUR	Neil Beer Holden - 49 Emily Street
SHEPPARTON	Parker Bros. Auto Co. - Benalla Road
STAWELL	Tonkin Motors - 71~73 Main Road
SWAN HILL	Swan Hill Holden - 94~102 Campbell Street
TALLANGATTA	Crispin Motors - 21 Towong Street

TIMBOON	Timboon Motors - Bailey Street	**Vic. Country**
TRARALGON	Colin Watson Holden - Princes Highway	
UNDERBOOL	A.J. Gloster & Sons - Cotter Street	
WANGARATTA	Alan Capp (New Cars) Pty Ltd - Tone Road	
WARBURTON Col	McKenzie Holden - Main Street	
WARRACKNABEAL	Amor Motors Aubrey Truck Sales - 33 Woolcock Street	
WARRAGUL	Vin Rowe Holden - 3 Endeavour Street	
WARRNAMBOOL	Callaghan Motors Pty Ltd - 133~137 Fairy Street	
WONTHAGGI	J.P. Holden - 2 Murray Street	
YARRAM	Graham Helleren Motors Pty Ltd - Bland Street	
YARRAWONGA	Pigdons Pty Ltd - Belmore Street	
BURNIE	Motors Burnie - 84~89 Marine Terrace	**Tas.**
DEVONPORT	Motors Devonport - Victoria Parade	
HOBART	Motors Pty Ltd - 179 MacQuarie Street	
KING ISLAND	King Island Motors Pty Ltd - Netherby Road, Currie	
LAUNCESTON	Motors Launceston - 93~95 Elizabeth Street	
SMITHTON	Motors Pty Ltd - 116 Nelson Road	
ULVERSTONE	Motors Pty Ltd - 99 Reibey Street	
ALBION	Bill Harrison Car Sales - Frodsham Street & Crosby Road	**Qld. Metropolitian**
ASPLEY	Zupps Aspley Pty Ltd -1442 Gympie Road	
CAPALABA	Oldfield Holden - 103 Redland Bay Road	
INDOOROOPILLY	Westpoint Holden - 40 Moggill Road	
IPSWICH	Ross Llewellyn Holden - 246 Brisbane Road	
MOOROOKA	John Sivyer Holden - 1060 Ipswich Road	
MT. GRAVATT	Zupps Motors Pty Ltd - 1310 Logan Road	
NEWSTEAD	Eagers Retail Pty Ltd - 95 Breakfast Creek Road	
NUNDAH	Eagers (Northside) - 1319 Sandgate Road	
PETRIE	Petrie Holden - 1059 Gympie Road	
REDCLIFFE	Village Holden - 425 Elizabeth Avenue	

Qld. Metropolitian

SPRINGWOOD	Motorama Holden - 3455 Pacific Highway
WINDSOR	Leach Holden - 143 Newmarket Road
WOOLLOONGABBA	Armstrong Holden - 73 Ipswich Road
WYNNUM	Doug Barton Holden - 200 Tingal Road

Qld. Country

ATHERTON	Redding Motors Pty Ltd - 2 Cook Street
AYR	Honeycombes Sales & Service - 213~217 Queen Street
BEAUDESERT	Lawson Holden - 57 Brisbane Street
BOWEN	McDermott Holden - 98 Herbert Street
BUNDABERG	Ross Gray Holden - Takalvan Street
CABOOLTURE	Beecham Holden - Bribie Island Road
CAIRNS	Ireland Holden - 227~233 Mulgrave Road
CALOUNDRA	Allan Scott Holden - Caloundra Road
CHARLEVILLE	Alan Dobbin Holden - 129 Alfred Street
CHARTERS TOWERS	Peters Holden - 57 Mosman Street
CHINCHILLA	Ainsworth Motors & Machinery Pty Ltd - 55 Chinchilla Street
CLONCURRY	Cloncurry Motors - 59 Scarr Street
CROWS NEST	Dennis Nissen Motors - 14 William Street
DALBY	Johnson's Holden - 36 Drayton Street
EMERALD	Orion Agriculture Supplies Pty Ltd - Clermont Street
GATTON	Gatton Auto Centre - 67 Railway Street
GLADSTONE	Andersons Auto City - 56 Yarroon Street
GYMPIE	Madills - 35 Mellor Street
INGHAM	Origlasso Motors - 99 Lannercost Street
INNISFAIL	I.C. Taylor Pty Ltd - 117 Edith Street
JULIA CREEK	Julia Creek Motors Pty Ltd - Burke Street
KILCOY	Hobart's Garage - 58 Mary Street
KINGAROY	John Dundas Pty Ltd - 38 King Street
LAIDLEY	Buhse's Garage Pty Ltd - 5 Spicer Street
LONGREACH	Longreach Motors - 33 Swan Street
MACKAY	Pioneer Holden - Cnr Gordon & Wellington Streets
MAROOCHYDORE	Sunco Holden - Wises Road

MARYBOROUGH	Whitaker Holden - 109~111 March Street	**Qld. Country**
MOUNT ISA	Barkly Motors Pty Ltd - Marian Street	
MURGON	Clifton Motors - McAllister Street	
NAMBOUR	Kallenbach Motors - 139 Howard Street	
NANANGO	Nanango Motors Pty Ltd - 72~74 Drayton Street	
NOOSA	Madills - 52 Mary Street	
PROSERPINE	Crossley Car Whitsunday Pty Ltd - 162~164 Main Street	
QUILPIE	Quality Motors - Boonkai Street	
ROCKHAMPTON	Lawrence's - 327 Richardson Road	
ROMA	Maranoa Multi Agencies - Bowen Street	
SOUTHPORT	Lockhart Holden - Cnr Nerang Road & Olsen Avenue	
SPRINGSURE	Springsure Motors - Eclipse Street	
ST. GEORGE	Halpin Motors - 39~41 Grey Street	
STANTHORPE	Central Motors - 42 Maryland Street	
TOOWOOMBA	Toowoomba Holden - Cnr James & Hume Streets	
TOWNSVILLE	Tony Ireland Holden - 87~91 Charters Towers Road	
TULLY	Island Coast Holden - 12 Richardson Street	
WARWICK	Deighton Motors Pty Ltd - Grafton Street	
ALICE SPRINGS	Kittle Holden - Cnr Wills & Railway Terrace	**N.T.**
DARWIN	Kerry Holden - 21~25 Stuart Highway	
KATHERINE	Master Motors - 1130 Victoria Highway	
ADELAIDE	City Holden - 203~221 Grenfell Street	**S.A. Metropolitian**
ELIZABETH	Peter Page Holden - Elizabeth Way	
MALVERN	Claridge Holden - 361~367 Unley Road	
PORT ADELAIDE	Smiths of Port Adelaide - 271 Commercial Road	
MORPHETT VALE	Southgate Holden - 49~59 Main South Road	
SOMERTON PARK	Hamilton Holden - 278~288 Brighton Road	
THEBARTON	United Holden - 1 Port Road	
VALLEY VIEW	Plaza Holden - 817~839 North East Road	

S.A. Country

BALAKLAVA	Balaklava Motors - 4 Wallace Street
BERRI	Rosenthal Bros Pty Ltd - Vaughan Terrace
CEDUNA	Beck Motors Pty Ltd - Poynton Street
CLARE	Brian Holmes Holden - 7 Old North Road
CLEVE	Herbert Motors Pty Ltd - Rudall Road
CRYSTAL BROOK	Newitt's Crystal Brook - 26 Brandis Street
CUMMINS	Trigg & Wedd - 3 Umlauf Street
GAWLER	Steinhage Holden - Cnr Murray & Bridge Sts
KADINA	J.H. Rosewarne Pty Ltd - Graves Street
KEITH	Farmers Centre - McBain Street
KINGSCOTE	Roberts Motors - Telegraph Road
KINGSTON	Lecornu's Service Garage - Agnes Street
LOXTON	Flight Motors Pty Ltd - Bookpurnong Terrace
MAITLAND	Maitland Motors Pty Ltd - 58 Robert Street
MALLALA	Curnow's Garage Pty Ltd - Balaklava Road
MENINGIE	Peter Hood Holden - Cnr Princes Highway & Coonalpyn Road
MILLICENT	Dennis Cowling Holden - 98 George Street
MT. BARKER	Gilbert Motors - 57 Adelaide Road
MT. GAMBIER	O.G. Roberts & Co - Jubilee Highway West
MURRAY BRIDGE	Dutton Motors Pty Ltd - 7 Adelaide Road
NARACOORTE	Kingcraig Motors Pty Ltd - 158~164 Smith Street
PORT AUGUSTA	Ken Feltus Holden - 38 Stirling Road
PORT LINCOLN	City Motors - King Street
PORT PIRIE	Spencer Holden - 50 Ellen Street
RENMARK	Rosenthal Motors Pty Ltd - Ral Ral Avenue
STRATHALBYN	Gilbert Motors (Strathalbyn) Pty Ltd - High Street
TANUNDA	Hage & Co Pty Ltd - 50 Murray Street
VICTOR HARBOR	Southern Motors Holden - 5 Victoria Street
WAIKERIE	Riverside Holden - 6 Crush Terrace
WHYALLA	Ken Feltus Holden - 64 Essington Lewis Avenue
YANKALILLA	Martin Motors Pty Ltd - Main Street
YORKETOWN	Southway Holden - 7 Minalaton Road

CANNINGTON	Brian Gardner Holden - 1308 Albany Hwy	
FREMANTLE	Shacks Holden - 64 Queen Victoria Street	
GOSNELLS	Lance Gibbons Holden - 2325 Albany Highway	
MELVILLE	Melville Motors Pty Ltd - 532~540 Canning Highway	
MIDLAND	Goldy Holden - 161 Great Eastern Highway	
MORLEY	Metro Motors - 212 Walter Road	**W.A. Metropolitan**
NAVAL BASE	Shacks Cockburn - 15 Rockingham Road	
OSBORNE PARK	North City Holden - Cnr Scarborough Beach Rd & Harborne St	
PERTH	City Motors - 505 Newcastle Street	
VICTORIA PARK	Young's Holden - 529 Albany Highway	
WANNEROO	Phoenix Holden - 5 Berriman Drive	

ALBANY	Manley Stanwell Holden - 92~98 Earl Street	
BRIDGETOWN	Kordics Bridgetown - Hampton Street	
BROOKTON	Coote Motors - Robinson Road	
BROOME	Norwest Holden - McPherson Street	
BUNBURY	Bunbury Holden - 27 Denning Road	
BUSSELTON	Fennessy Holden - 2~4 Bussell Hwy	
CARNAMAH	T & H Walton Stores Pty Ltd - Robertson Street	
CARNARVON	North West Autos - 175 Robinson Street	
COLLIE	Station Motors - 102 Throssell Street	
CORRIGIN	Farmpower - Kunjin Road	**W.A. Country**
CRANBROOK	Cranbrook Motors - 11~13 Gathorne Street	
DALWALLINU	Reid & Inglis - Johnson Street	
ESPERANCE	Dempster Holden - Norseman Road	
GERALDTON	Youngs Motors - Cathedral Avenue	
GNOWANGERUP	G.S. Hendry & Co Pty Ltd - Yougenup Street	
HARVEY	Stockman Holden - 111 Uduc Road	
KALGOORLIE	Kyle Motors - 114 Boulder Road	
KATANNING	Edwards Holden - 159 Clive Street	
KELLERBERRIN	Dowding Motors - 1 Mitchell Street	
KOJONUP	F.W. & M. Harris & Sons - 98 Albany Hwy	

W.A. Country

MANDURAH	Mandurah Holden - 283 Pinjarra Rd
MANJIMUP	Kordics - Rose Street
MERREDIN	Carson's of Merredin - 112 Barrack Street
MOORA Frank	Lewis Holden - Gardiner Street
NAREMBEEN	Aquip Machinery - 20 Churchill Avenue
NARROGIN	Marley White & Co - Federal Streets
NORTHAM	Withnell Motors - 58 Fitzgerald Street
WAGIN	Marley White & Co - Tudor Street
WONGAN HILLS	Agro Machinery Pty Ltd - Fenton Street
WYALKATCHEM	J.S. Rimmer & Sons - Railway Terrace

CUSTOMER ASSISTANCE

We want you to be happy with your new car, together with the people you deal with while you have the car.
Normally, any problems with the sales, operation or servicing of your car will be handled by your Dealer's Sales and Service Department.
We realize however, that, with the best intentions, misunderstandings do occur sometimes.

☞ Therefore, we suggest you discuss any concern with one of the Dealer's management people. If you haven't received satisfaction from the Sales Manager or Service Manager - go to the General Manager or to the Dealer himself.

By now you should have satisfaction. If not, the Holden's Customer Assistance office is at your disposal.

☎ The Holden's Customer Assistance representatives can be telephoned from anywhere within Australia for only the cost of a local call. The Melbourne area number is 646 5466. Outside the Melbourne Metropolitan area, the number is 008 03 3349.

If your concern relates to parts/accessories and you have made contact with the Dealer or Distributor without satisfaction, you may contact Holden's Service Parts Operations on (03) 797 7341
Naturally, telephoning is the quickest and the best way to contact. However, if you prefer to write the address is:

✉

The Manager
Holden's Customer Assistance Services
GPO Box 548D
Melbourne, 3001.

Your letter should clearly outline your concern or query, and include the following:

✍

- ★ Your name and address
- ★ Telephone numbers, both private & Business
- ★ Servicing Dealership's name and address
- ★ Vehicle model
- ★ Vehicle identification number (I.S.O.V.I.N.)
- ★ Date of purchase
- ★ Current odometer reading

Most of this information will be found on the Vehicle Identification Certificate, located inside the front cover of this handbook.
Before you write however, remember that the telephone is the quicker and more efficient means of communication.

YOU SHOULD READ THIS IMPORTANT SERVICE INFORMATION

REGULAR SERVICING ESSENTIAL

Always have your Holden serviced **regularly**, for by doing this, you will ensure the continued efficiency of your vehicle.

It is recommended that you ask your Holden Dealer to carry out the service because they are equipped with special service tools and have staff experienced in servicing Holden vehicles.

RECOMMENDED DAILY & WEEKLY CHECKS

The checks given below are easily carried out and are strongly advised.

Daily checks:

1. Coolant (radiator water) level — see "Checking the engine coolant level" in section 7 "Engine and Chassis".
2. Engine oil level — see "Checking the engine oil level" in section 7 "Engine and Chassis".

Weekly checks:

1. Tyre pressure including spare— see tyre placard on B pillar.
2. Brake and clutch master cylinder fluid levels— see "Checking brake and clutch fluid" in section 7 "Engine and Chassis".
3. Windshield washer fluid levels — see "Adding washer fluid" in section 7 "Engine and Chassis".

HOLDEN'S LUBRICANTS AND COOLANT

It is essential that Holden's approved lubricants and coolant be used when replacing them in Holden vehicles. When your vehicle was being designed, great care was taken by Holden engineers in selecting lubricants and coolant for your vehicle. They are the product of extensive research and development and have been designed to provide maximum performance and protection when replaced in accordance with the vehicle maintenance schedule contained in this booklet. Holden's approved lubricants and coolant are specified in this section.

The use of non genuine additives with Holden's approved lubricants and coolant is not recommended. Their use is unnecessary, and will not only increase maintenance costs, but may also be detrimental to the operation of your vehicle.

Engine oil

To ensure continued efficiency and long life of your vehicle's engine, the engine oil **must** be kept at the correct level and **changed** in accordance with the vehicle maintenance schedule contained in this section.

See **"Checking the engine oil"** and **"Changing the engine oil"** in section 7 "Engine and Chassis" for further information. This requirement is essential on all Holden petrol engines.

To prevent possible harm to the engine, always replace engine oil with Holden's approved engine oil in accordance with the Holden vehicle maintenance schedule.

Engine coolant

Your engine cooling system **must** contain ethylene-glycol based antifreeze containing anticorrosive.

Ethylene-glycol antifreeze coolant containing anticorrosive is the type of coolant your new Holden was delivered with. In addition to providing antifreeze protection preventing subsequent damage to the cooling system as a result of freezing, the coolant also protects the cooling system components from corrosion.

When replacing coolant, it is **essential** that **all** existing coolant be thoroughly flushed from the system (includes engine, radiator, heater and hoses) and Holden's approved coolant added together with clean demineralised or distilled water.

See **"Changing the engine coolant"** in section 7 "Engine and Chassis" for further information. Holden's approved coolant must be used to provide maximum protection.

NOTICE:

To maintain designed cooling system protection and efficiency, the mixing of Holden's approved coolant with any other coolant or additive must not occur.

Use only clean demineralised or distilled water to fill the cooling system.

Do not use alcohol type antifreeze or plain water alone.

Whenever coolant is replaced, the system must be thoroughly flushed as described in "Changing the engine coolant" in section 7 "Engine and Chassis".

VEHICLE APPEARANCE

If you park or garage your vehicle where the atmosphere or road surface contains salt, you should wash your vehicle frequently to minimise corrosion. See section 5 for further information.

HOLDEN'S COMMITMENT TO QUALITY SERVICE

Quality is uppermost throughout the design, testing and manufacture of Holden vehicles. Each one is made to exacting specifications for your driving comfort and enjoyment. Modern motor vehicles are extremely complex and contain many parts. Occasionally, a failure of one of the parts may occur. Should you experience such a failure, you will find your nearest Holden Dealer well equipped to correct it as each dealership has special service tools and trained technicians.

If you are travelling and require service but are too far from your servicing Dealer, you will find the name, address and telephone number of the Dealer nearest you, in the Holden Dealer Directory contained in this section.

VEHICLE EMISSION CONTROL INFORMATION

ENVIRONMENTAL PROTECTION AND HOLDEN

It is a matter of great importance and also the duty of mankind to protect our atmosphere and environment against pollution and leave it clean and unpolluted to posterity. Holden has long been directing its technical efforts and resources toward fulfilling this important requirement. As a result, Holden has succeeded in developing various emission control systems that will minimise atmospheric pollution without sacrificing vehicle utility.

The emission control systems installed in your vehicle comply with all the requirements of the relevant Australian design rules as well as various other regulations.

YOUR ROLE IN CONTROLLING AIR POLLUTION

To keep our air clean, you are responsible for the proper operation, maintenance and care of your vehicle in accordance with the instructions contained in section 7 "Engine and Chassis".

Do not remove or modify the emission control systems in any vehicle operating on public roads after the purchase of the vehicle. Any maintenance work on the emission control systems other than that specified by Holden should be avoided.

You are also responsible for keeping maintenance records as in some instances it may be necessary for you to substantiate that the required maintenance has been performed.

If you have services performed by someone other than an authorised Holden dealer, you should keep a file of the repair orders to show completion and compliance to these services.

SOURCES OF VEHICLE EMISSION

There are three kinds of gases emitted by the vehicle that pollute the atmosphere:

1. **Crankcase emission (Blow-by gas)**

   This is the unburned gas in the cylinder that leaks into the crankcase and is released into the atmosphere and contains hydrocarbons (HC).

2. **Exhaust emission**

   This is the gas formed by the combustion of the fuel inside the cylinder and discharged into the atmosphere through the exhaust pipe. It contains carbon monoxide (CO), hydrocarbons (HC) and nitrogen oxides (NOx).

3. **Fuel evaporative emission**

   This is the petrol vapour formed by vaporization in the fuel system. It contains hydrocarbons (HC).

VEHICLE EMISSION CONTROL INFORMATION LABEL

The vehicle emission control information label is adhered to the underside of your Holden vehicle hood. This label contains the principle engine tune-up specifications relating to the exhaust emissions.

FUEL RECOMMENDATIONS

Use only unleaded petrol with a Research Octane Number (RON) of 91 or higher. For further information refer to section 2.

Use of leaded petrol will cause the catalytic converter to lose its effectiveness and the emission control system to function improperly. Also, this can increase maintenance costs.

To prevent leaded petrol from being poured into the fuel tank, your Holden has a small fuel tank opening. The nozzle on pumps with unleaded fuel will fit it, but the larger standard nozzle on pumps with leaded petrol will not.

YOUR HOLDEN'S IDENTIFICATION

The vehicle identification number (VIN) is stamped on the engine compartment bulkhead.

The manufacturer's plate, mounted on the same bulkhead, contains VIN, model data and date of manufacture (see below). For more information, refer to section 2.

Date of Manufacture means:

The Date of Manufacture, herein called the "Built Date", is the calendar month and year in which the body shell and power train sub-assemblies are conjoined and the vehicle is driven or moved from the production line.

AIR CONDITIONER INFORMATION

For guidance on how to operate the air conditioner, see "Air conditioner controls" in section 1.

In the process of conditioning air, the air conditioner unit removes moisture. The moisture runs onto the surface beneath the vehicle, so do not become alarmed if a pool of water is noticed below a stationary vehicle when the air conditioner is operating.

The air conditioner items requiring service are given on each of the service coupons in this handbook.

Like the rest of your vehicle, the air conditioner does require regular maintenance. As an added precaution, the unit should be turned off if a malfunction is noticed (i.e. if it is not working) and the vehicle taken to an authorised Holden Dealer at the earliest possible convenience.

To keep the air conditioner as free as possible from odours that may be given off from such things as tobacco smoke, it is best to use the FRESH mode as often as conditions allow. This gives odour giving elements less chance to condense on the evaporator fins of the cooling unit.

To maintain the system in good working order, the air conditioner should be operated at least a minimum of five minutes each week regardless of the season. This will ensure adequate lubrication of system components which helps maximise component life and minimise possible refrigerant loss.

VEHICLE MAINTENANCE SCHEDULE

The periodic maintenance service should be followed to ensure correct emission control at all times.
If any of the components or systems are out of adjustment, toxic elements (CO, HC and NOx) in excess of prescribed levels may be emitted intothe atmosphere. Holden has developed two maintenance schedule programmes covering all possible conditions you are likely to experience while driving your vehicle. To maintain your vehicle in optimum condition, it is recommended that you follow the maintenance schedule that best represents your driving conditions.
A kilometre or time interval determines when service is necessary.
For most people, the odometer reading will indicate when service is needed. If, however, you drive very little, your vehicle should be serviced at least every 6 months as shown on maintenance schedule A (page 9-33). Under severe driving conditions, maintenance is required more frequently as shown on maintenance schedule B (page 9-36).

MAINTENANCE SCHEDULE A

Maintenance schedule A is for normal driving conditions only. This schedule should be followed if your vehicle is operated under any driving conditions other than those specified for maintenance schedule B.

MAINTENANCE SCHEDULE B

Maintenance schedule B is for severe driving conditions only. This schedule should be followed if your vehicle is operated under any of the following severe driving conditions.

* Extensive idling such as taxis, police cars or door to door calls.
* Repeated short trips (less than 8 km).
* Driving on rough and/or muddy roads.
* Driving on dusty roads.
* Camper or trailer towing.
* Driving in extremely cold weather and/or on salted roads.
* Repeated short trips in extremely cold weather.

Note:
The maintenance schedules specified in this section outline service requirements for vehicles that are operated under normal or severe driving conditions. If the operating conditions of your vehicle alternate between normal and severe (i.e. infrequent operation under any of the conditions outlined for maintenance schedule B), it is recommended that you consult your Holden dealer, who will advise you on the appropriate service requirements for your particular driving conditions.

VEHICLE MAINTENANCE SCHEDULE

SCHEDULE A (for normal driving conditions only)

Maintenance operations:
R = Replace
A = Check and adjust as necessary
T = Tighten to specified torque
I = Inspect and correct or replace as necessary
L = Lubricate

Maintenance service beyond 200,000 km or 120 months should continue to be performed at the same intervals shown for each maintenance schedule.

Service interval (Use odometer reading or months, whichever comes first) / **Maintenance items**	1	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200
x 1000 km	1	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200
Months	1.5	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120
Service items for all models as applicable																					
ENGINE COMPONENTS																					
Valve clearance	-	-	-	-	-	-	-	-	A	-	-	-	-	-	-	-	A	-	-	-	-
Drive belts	-	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Engine oil (grade SG or higher)	-	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Engine oil filter	-	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Cooling and heater system hoses and connections	-	-	-	-	I	-	-	-	I	-	I	-	I	-	I	-	I	-	I	-	I
Engine coolant (See "Holden's lubricants and coolant" in this section)	-	-	-	-	-	-	R	-	-	-	R	-	-	-	R	-	-	-	R	-	-
Exhaust pipes and mountings	-	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I

Schedule continued overleaf

Maintenance service beyond 200,000 km or 120 months should continue to be performed at the same intervals shown for each maintenance schedule.

Service interval (Use odometer reading or months, whichever comes first) **Maintenance items** **x 1000 km**	1	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200
Months	1.5	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120
IGNITION SYSTEM																					
Battery	-	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Spark plugs (plugs with plattinum electrodes)	-	-	-	-	-	-	-	-	-	-	R	-	-	-	-	-	-	-	-	-	R
FUEL SYSTEM																					
Air filter	-	-	I	-	R	-	I	-	R	-	I	-	R	-	I	-	R	-	I	-	R
Fuel filter	-	-	-	-	-	-	-	-	R	-	-	-	-	-	-	-	R	-	-	-	-
CO/HC concentration	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I
Fuel tank cap, fuel line, connections and fuel vapour control valve	-	-	-	-	I	-	-	-	I	-	I	-	I	-	I	-	I	-	I	-	I
Charcoal canister	-	-	-	-	I	-	-	-	I	-	-	-	I	-	-	-	I	-	-	-	I
CHASSIS AND BODY																					
Clutch pedal	I	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brake pedal and parking brake	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I
Brake linings and drums (including parking brake linings and drums)	-	-	-	-	I	-	-	-	I	-	-	-	I	-	-	-	I	-	-	-	I
Brake pads and discs #[1]	-	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Brake fluid	I	I	I	I	R	I	I	I	R	I	I	I	R	I	I	I	R	I	I	I	R
Clutch fluid	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I

Note: #[1] For 10000km or 6 months service, inspect thickness of disc brake pads only.

Service interval (Use odometer reading or months, whichever comes first) **Maintenance items**	Maintenance service beyond 200,000 km or 120 months should continue to be performed at the same intervals shown for each maintenance schedule.																					
	x 1000 km	1	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200
	Months	1.5	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120
CHASSIS AND BODY - continued																						
Brake line pipes and hoses		I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I
Power steering fluid level		-	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Drive shaft boot condition		-	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Steering wheel and linkage		-	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I
Ball joints and dust covers		-	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I
Differential oil (automatic transmission)		-	I	I	I	R	I	I	I	R	I	I	I	R	I	I	I	R	I	I	I	R
Automatic transmission fluid		-	I	I	I	I	I	R	I	I	I	I	I	R	I	I	I	I	I	R	I	I
Manual transmission oil		-	I	I	I	I	I	I	I	I	I	R	I	I	I	I	I	I	I	I	I	R
Front and rear suspensions		-	-	-	-	I	-	-	-	I	-	-	-	I	-	-	-	I	-	-	-	I
Air conditioning operation, including sight glass		-	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I
Chassis and body bolts and nuts		T	-	T	-	T	-	T	-	T	-	T	-	T	-	T	-	T	-	T	-	T
Tyres and inflation pressures		-	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
All lights, horns, wipers and washers		-	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
ROAD TEST																						
Road test vehicle		-	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Wheel alignment (side slip)		INSPECT WHEN ABNORMAL CONDITION IS NOTED.																				

VEHICLE MAINTENANCE SCHEDULE

SCHEDULE B (for severe driving conditions only)

Maintenance operations:
R = Replace
A = Check and adjust as necessary
T = Tighten to specified torque
I = Inspect and correct or replace as necessary
L = Lubricate

For maintenance service beyond 100,000 km or 60 months refer to pages 9-39 to 9-41.

Service interval (Use odometer reading or months, whichever comes first) **Maintenance items**	**x 1000 km**	1	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
	Months	1.5	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60
Service items for all models as applicable																						
ENGINE COMPONENTS																						
Timing belt		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	R
Valve clearance		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-	-	-
Drive belts		-	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I
Engine oil (grade SG or higher)		-	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Engine oil filter		-	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Cooling and heater system hoses and connections		-	-	-	-	-	-	-	-	I	-	-	-	-	-	-	-	I	-	-	-	I
Engine coolant (See "Holden's lubricants and coolant" in this section)		-	-	-	-	-	-	-	-	-	-	-	-	R	-	-	-	-	-	-	-	R
Exhaust pipes and mountings		-	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I

Service interval (Use odometer reading or months, whichever comes first)	For maintenance service beyond 100,000 km or 60 months refer to pages 9-39 to 9-41.																					
	x 1000 km	1	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Maintenance items	**Months**	1.5	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60
IGNITION SYSTEM																						
Battery		-	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Spark plugs (plugs with plattinum electrodes)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	R
FUEL SYSTEM																						
Air filter #[1]		-	I	I	I	I	I	I	I	R	I	I	I	I	I	I	I	R	I	I	I	I
Fuel filter		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	R	-	-	-	-
CO/HC concentration		I	-	-	-	I	-	-	-	I	-	-	-	I	-	-	-	I	-	-	-	I
Fuel tank cap, fuel line, connections and fuel vapour control valve		-	-	-	-	-	-	-	-	I	-	-	-	-	-	-	-	I	-	-	-	I
Charcoal canister		-	-	-	-	-	-	-	-	I	-	-	-	-	-	-	-	I	-	-	-	-
CHASSIS AND BODY																						
Clutch pedal		I	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brake pedal and parking brake		I	-	-	-	I	-	-	-	I	-	-	-	I	-	-	-	I	-	-	-	I
Brake linings and drums (including parking brake linings and drums)		-	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I
Brake pads and discs		-	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I
Brake fluid		I	-	I	-	I	-	I	-	R	-	I	-	I	-	I	-	R	-	I	-	I

Note: #[1] Inspect every 2500km or 6 weeks if used mainly in dusty conditions.

Schedule continued overleaf

Service interval (Use odometer reading or months, whichever comes first) / **Maintenance items**	For maintenance service beyond 100,000 km or 60 months refer to pages 9-39 to 9-41.																				
	x 1000 km	1	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
	Months	1.5	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60
CHASSIS AND BODY - continued																						
Clutch fluid		I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I
Brake line pipes and hoses		I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I
Power steering fluid level		-	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I
Drive shaft boot condition		-	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I
Steering wheel and linkage		-	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I
Ball joints and dust covers		-	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I
Differential oil (automatic transmission)		-	-	I	-	I	-	I	-	R	-	I	-	I	-	I	-	R	-	I	-	I
Automatic transmission fluid		-	-	I	-	I	-	I	-	I	-	I	-	R	-	I	-	I	-	I	-	I
Manual transmission oil		-	-	I	-	I	-	I	-	I	-	R	-	I	-	I	-	I	-	I	-	R
Front and rear suspensions		-	-	-	-	I	-	-	-	I	-	-	-	I	-	-	-	I	-	-	-	I
Air conditioning operation, including sight glass		-	-	-	-	I	-	-	-	I	-	-	-	I	-	-	-	I	-	-	-	I
Chassis and body bolts and nuts		T	-	T	-	T	-	T	-	T	-	T	-	T	-	T	-	T	-	T	-	T
Tyres and inflation pressures		-	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I
All lights, horns, wipers and washers		-	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I
ROAD TEST																						
Road test vehicle		-	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I
Wheel alignment (side slip)		INSPECT WHEN ABNORMAL CONDITION IS NOTED.																				

Service interval (Use odometer reading or months, whichever comes first)	Maintenance service beyond 205,000 km or 123 months should continue to be performed at the same intervals shown for each maintenance schedule.																					
	x 1000 km	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185	190	195	200	205
Maintenance items	**Months**	63	66	69	72	75	78	81	84	87	90	93	96	99	102	105	108	111	114	117	120	123
Service items for all models as applicable																						
ENGINE COMPONENTS																						
Timing belt		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	R	-
Valve clearance		-	-	-	-	-	-	-	-	-	-	-	R	-	-	-	-	-	-	-	-	-
Drive belts		-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-
Engine oil (grade SG or higher)		R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Engine oil filter		R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Cooling and heater system hoses and connections		-	-	-	I	-	-	-	I	-	-	-	I	-	-	-	I	-	-	-	I	-
Engine coolant (See "Holden's lubricants and coolant" in this section)		-	-	-	-	-	-	-	R	-	-	-	-	-	-	-	R	-	-	-	-	-
Exhaust pipes and mountings		-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-
IGNITION SYSTEM																						
Battery		-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-
Spark plugs (plugs with plattinum electrodes)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	R	-

Schedule continued overleaf

Maintenance service beyond 205,000 km or 123 months should continue to be performed at the same intervals shown for each maintenance schedule.

Service interval (Use odometer reading or months, whichever comes first) **Maintenance items**	**x 1000 km**	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185	190	195	200	205
	Months	63	66	69	72	75	78	81	84	87	90	93	96	99	102	105	108	111	114	117	120	123
FUEL SYSTEM																						
Air filter #[1]		I	I	I	R	I	I	I	I	I	I	I	R	I	I	I	I	I	I	I	R	I
Fuel filter		-	-	-	-	-	-	-	-	-	-	-	R	-	-	-	-	-	-	-	-	-
CO/HC concentration		-	-	-	I	-	-	-	I	-	-	-	I	-	-	-	I	-	-	-	I	-
Fuel tank cap, fuel line, connections and fuel vapour control valve		-	-	-	I	-	-	-	I	-	-	-	I	-	-	-	I	-	-	-	I	-
Charcoal canister		-	-	-	I	-	-	-	-	-	-	-	I	-	-	-	-	-	-	-	I	-
CHASSIS AND BODY																						
Clutch pedal		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brake pedal and parking brake		-	-	-	I	-	-	-	I	-	-	-	I	-	-	-	I	-	-	-	I	-
Brake linings and drums (including parking brake linings and drums)		-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-
Brake pads and discs		-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-
Brake fluid		-	I	-	R	-	I	-	I	-	I	-	R	-	I	-	I	-	I	-	R	-
Clutch fluid		-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-
Brake line pipes and hoses		-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-
Power steering fluid level		-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-
Drive shaft boot condition		-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-

Note: #[1] Inspect every 2500km or 6 weeks if used mainly in dusty conditions.

Maintenance service beyond 205,000 km or 123 months should continue to be performed at the same intervals shown for each maintenance schedule.

Service interval (Use odometer reading or months, whichever comes first)	**x 1000 km**	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185	190	195	200	205
Maintenance items	**Months**	63	66	69	72	75	78	81	84	87	90	93	96	99	102	105	108	111	114	117	120	123
CHASSIS AND BODY - continued																						
Steering wheel and linkage		-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-
Ball joints and dust covers		-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-
Differential oil (automatic transmission)		-	I	-	R	-	I	-	I	-	I	-	R	-	I	-	I	-	I	-	R	-
Automatic transmission fluid		-	I	-	R	-	I	-	I	-	I	-	-	-	I	-	R	-	I	-	I	-
Manual transmission oil		-	I	-	I	-	I	-	I	-	R	-	I	-	I	-	I	-	I	-	R	-
Front and rear suspensions		-	-	-	I	-	-	-	I	-	-	-	I	-	-	-	I	-	-	-	I	-
Air conditioning operation, including sight glass		-	-	-	I	-	-	-	I	-	-	-	I	-	-	-	I	-	-	-	I	-
Chassis and body bolts and nuts		-	T	-	T	-	T	-	T	-	T	-	T	-	T	-	T	-	T	-	T	-
Tyres and inflation pressures		-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-
All lights, horns, wipers and washers		-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-
ROAD TEST																						
Road test vehicle		-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-
Wheel alignment (side slip)		INSPECT WHEN ABNORMAL CONDITION IS NOTED.																				

Schedule continued overleaf

APPROXIMATE SERVICE TIMES (HOURS)

LIST A (for normal driving conditions only)

Explanation of abbreviations in brackets:						
	M/T	=	Manual transmission	D/C	=	Front disc brakes and rear drum brakes
	A/T	=	Automatic transmission	RR D/C	=	Front and rear disc brakes

Service interval (Use odometer reading or months, whichever comes first) MODEL	**x 1000 km**	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200
	Months	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120
Apollo (M/T, D/C)		0.8	1.4	0.8	2.1	0.8	1.6	0.8	3.6	0.8	2.3	0.8	2.1	0.8	1.8	0.8	3.6	0.8	1.8	0.8	2.9
Apollo (M/T, RR D/C)		0.8	1.6	0.8	2.3	0.8	1.7	0.8	3.8	0.8	2.5	0.8	2.3	0.8	2.0	0.8	3.8	0.8	2.0	0.8	3.2
Apollo (A/T, D/C)		0.8	1.4	0.8	2.2	0.8	1.9	0.8	3.7	0.8	2.3	0.8	2.5	0.8	1.8	0.8	3.7	0.8	2.2	0.8	2.9
Apollo (A/T, RR D/C) with 5S-FE engine		0.8	1.6	0.8	2.4	0.8	2.1	0.8	3.9	0.8	2.4	0.8	2.7	0.8	2.0	0.8	3.9	0.8	2.3	0.8	3.2
Apollo (A/T, RR D/C) with 3VZ-FE engine		0.8	1.6	0.8	2.4	0.8	2.1	0.8	6.4	0.8	2.5	0.8	2.7	0.8	2.0	0.8	6.4	0.8	2.3	0.8	3.2

APPROXIMATE SERVICE TIMES (HOURS)

LIST B (for severe driving conditions only)

Explanation of abbreviations in brackets:
M/T = Manual transmission
A/T = Automatic transmission
D/C = Front disc brakes and rear drum brakes
RR D/C = Front and rear disc brakes

Service interval (Use odometer reading or months, whichever comes first)	**x 1000 km**	2.5	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
MODEL	**Months**	1.5	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60
Apollo (M/T, D/C)		0.1	0.5	1.6	0.5	1.8	0.5	1.6	0.5	2.1	0.5	1.7	0.5	1.9	0.5	1.6	0.5	3.6	0.5	1.6	0.5	4.0
Apollo (M/T, RR D/C)		0.1	0.5	1.8	0.5	2.0	0.5	1.8	0.5	2.3	0.5	1.9	0.5	2.1	0.5	1.8	0.5	3.8	0.5	1.8	0.5	4.2
Apollo (A/T, D/C)		0.1	0.5	1.6	0.5	1.8	0.5	1.6	0.5	2.2	0.5	1.6	0.5	2.3	0.5	1.6	0.5	3.7	0.5	1.6	0.5	4.0
Apollo (A/T, RR D/C) with 5S-FE engine		0.1	0.5	1.8	0.5	2.0	0.5	1.8	0.5	2.4	0.5	1.8	0.5	2.5	0.5	1.8	0.5	3.9	0.5	1.8	0.5	4.2
Apollo (A/T, RR D/C) with 3VZ-FE engine		0.1	0.5	1.8	0.5	2.0	0.5	1.8	0.5	2.4	0.5	1.8	0.5	2.5	0.5	1.8	0.5	6.4	0.5	1.8	0.5	4.2

Service interval (Use odometer reading or months, whichever comes first)	**x 1000 km**	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185	190	195	200
MODEL	**Months**	63	66	69	72	75	78	81	84	87	90	93	96	99	102	105	108	111	114	117	120
Apollo (M/T, D/C)		0.5	1.6	0.5	2.1	0.5	1.6	0.5	2.2	0.5	1.7	0.5	3.6	0.5	1.6	0.5	2.3	0.5	1.6	0.5	4.3
Apollo (M/T, RR D/C)		0.5	1.8	0.5	2.3	0.5	1.8	0.5	2.4	0.5	1.9	0.5	3.8	0.5	1.8	0.5	2.4	0.5	1.8	0.5	4.5
Apollo (A/T, D/C)		0.5	1.6	0.5	2.5	0.5	1.6	0.5	2.2	0.5	1.6	0.5	3.7	0.5	1.6	0.5	2.5	0.5	1.6	0.5	4.3
Apollo (A/T, RR D/C) with 5S-FE engine		0.5	1.8	0.5	2.7	0.5	1.8	0.5	2.4	0.5	1.8	0.5	3.9	0.5	1.8	0.5	2.7	0.5	1.8	0.5	4.5
Apollo (A/T, RR D/C) with 3VZ-FE engine		0.5	1.8	0.5	2.7	0.5	1.8	0.5	2.4	0.5	1.8	0.5	6.4	0.5	1.8	0.5	2.7	0.5	1.8	0.5	4.6

INTERMEDIATE SERVICE RECORD FOR VEHICLES OPERATED UNDER SEVERE DRIVING CONDITIONS

For vehicles operated under severe driving conditons, engine oil and filter change, and other items as listed in maintenance schedule B must be serviced every 5000 km or every 3 months (approximate service time 0.5 hours).

5000 km or 3 months Date .... km	To be stamped by an authorised Holden Dealer	**HOLDEN WISE** **QUALITY SERVICE & PARTS**		45000km or 27 months Date .... km	To be stamped by an authorised Holden Dealer
15000 km or 9 months Date .... km	To be stamped by an authorised Holden Dealer	Note: Oil and materials required to complete the intermediate services are chargeable to the owner.		55000km or 33 months Date .... km	To be stamped by an authorised Holden Dealer
25000 km or 15 months Date .... km	To be stamped by an authorised Holden Dealer	35000 km or 21 months Date .... km	To be stamped by an authorised Holden Dealer	65000km or 39 months Date .... km	To be stamped by an authorised Holden Dealer

75000km or 45 months Date .... km	To be stamped by an authorised Holden Dealer	**HOLDEN WISE** **QUALITY SERVICE & PARTS**		115000km or 69 months Date .... km	To be stamped by an authorised Holden Dealer
85000km or 51 months Date .... km	To be stamped by an authorised Holden Dealer	Note: Oil and materials required to complete the intermediate services are chargeable to the owner.		125000km or 75 months Date .... km	To be stamped by an authorised Holden Dealer
95000km or 57 months Date .... km	To be stamped by an authorised Holden Dealer	105000km or 63 months Date .... km	To be stamped by an authorised Holden Dealer	135000km or 81 months Date .... km	To be stamped by an authorised Holden Dealer

<table>
<tr><td>145000km or
87 months
Date ....
km ....</td><td>To be stamped by
an authorised
Holden Dealer</td><td colspan="2" rowspan="2">HOLDEN WISE
QUALITY SERVICE & PARTS
Note:
Oil and materials required to complete the intermediate services are chargeable to the owner.</td><td>185000km or
111 months
Date ....
km ....</td><td>To be stamped by
an authorised
Holden Dealer</td></tr>
<tr><td>155000km or
93 months
Date ....
km ....</td><td>To be stamped by
an authorised
Holden Dealer</td><td>195000km or
117 months
Date ....
km ....</td><td>To be stamped by
an authorised
Holden Dealer</td></tr>
<tr><td>165000km or
99 months
Date ....
km ....</td><td>To be stamped by
an authorised
Holden Dealer</td><td>175000km or
105 months
Date ....
km ....</td><td>To be stamped by
an authorised
Holden Dealer</td><td>205000km or
123 months
Date ....
km ....</td><td>To be stamped by
an authorised
Holden Dealer</td></tr>
</table>

INTERMEDIATE SERVICE RECORD FOR VEHICLES OPERATED UNDER SEVERE DRIVING CONDITIONS

For vehicles operated under severe driving conditions, engine air filter must be serviced every 2500 km or every 1.5 months as listed in maintenance shedule B (approximate service time 0.1 hours) .

2500 km or 1.5 months Date .... km	To be stamped by an authorised Holden Dealer	**HOLDEN WISE** QUALITY SERVICE & PARTS		42500 km or 25.5 months Date .... km	To be stamped by an authorised Holden Dealer
7500 km or 4.5 months Date .... km	To be stamped by an authorised Holden Dealer			47500 km or 28.5 months Date .... km	To be stamped by an authorised Holden Dealer
12500 km or 7.5 months Date .... km	To be stamped by an authorised Holden Dealer	Note: Oil and materials required to complete the intermediate services are chargeable to the owner.		52500 km or 31.5 months Date .... km	To be stamped by an authorised Holden Dealer
17500 km or 10.5 months Date .... km	To be stamped by an authorised Holden Dealer			57500 km or 34.5 months Date .... km	To be stamped by an authorised Holden Dealer
22500 km or 13.5 months Date .... km	To be stamped by an authorised Holden Dealer	32500 km or 19.5 months Date .... km	To be stamped by an authorised Holden Dealer	62500 km or 37.5 months Date .... km	To be stamped by an authorised Holden Dealer
27500 km or 16.5 months Date .... km	To be stamped by an authorised Holden Dealer	37500 km or 22.5 months Date .... km	To be stamped by an authorised Holden Dealer	67500 km or 40.5 months Date .... km	To be stamped by an authorised Holden Dealer

72500 km or 43.5 months Date .... km	To be stamped by an authorised Holden Dealer	**HOLDEN WISE** QUALITY SERVICE & PARTS Note: Oil and materials required to complete the intermediate services are chargeable to the owner.		112500 km or 67.5 months Date .... km	To be stamped by an authorised Holden Dealer
77500 km or 46.5 months Date .... km	To be stamped by an authorised Holden Dealer			117500 km or 70.5 months Date .... km	To be stamped by an authorised Holden Dealer
82500 km or 49.5 months Date .... km	To be stamped by an authorised Holden Dealer			122500 km or 73.5 months Date .... km	To be stamped by an authorised Holden Dealer
87500 km or 52.5 months Date .... km	To be stamped by an authorised Holden Dealer			127500 km or 76.5 months Date .... km	To be stamped by an authorised Holden Dealer
92500 km or 55.5 months Date .... km	To be stamped by an authorised Holden Dealer	102500 km or 61.5 months Date .... km	To be stamped by an authorised Holden Dealer	132500 km or 79.5 months Date .... km	To be stamped by an authorised Holden Dealer
97500 km or 58.5 months Date .... km	To be stamped by an authorised Holden Dealer	107500 km or 64.5 months Date .... km	To be stamped by an authorised Holden Dealer	137500 km or 82.5 months Date .... km	To be stamped by an authorised Holden Dealer

142500 km or 85.5 months Date .... km	To be stamped by an authorised Holden Dealer			182500 km or 109.5 months Date .... km	To be stamped by an authorised Holden Dealer
147500 km or 88.5 months Date .... km	To be stamped by an authorised Holden Dealer	**HOLDEN WISE** QUALITY SERVICE & PARTS		187500 km or 112.5 months Date .... km	To be stamped by an authorised Holden Dealer
152500 km or 91.5 months Date .... km	To be stamped by an authorised Holden Dealer	Note: Oil and materials required to complete the intermediate services are chargeable to the owner.		192500 km or 115.5 months Date .... km	To be stamped by an authorised Holden Dealer
157500 km or 94.5 months Date .... km	To be stamped by an authorised Holden Dealer			197500 km or 118.5 months Date .... km	To be stamped by an authorised Holden Dealer
162500 km or 97.5 months Date .... km	To be stamped by an authorised Holden Dealer	172500 km or 103.5 months Date .... km	To be stamped by an authorised Holden Dealer	200500 km or 121.5 months Date .... km	To be stamped by an authorised Holden Dealer
167500 km or 100.5 months Date .... km	To be stamped by an authorised Holden Dealer	177500 km or 106.5 months Date .... km	To be stamped by an authorised Holden Dealer	203500 km or 124.5 months Date .... km	To be stamped by an authorised Holden Dealer

1000 km

Free Service
Voucher*

HOLDEN WISE
QUALITY SERVICE & PARTS

Date ....

km ....

Dealer Stamp

To be stamped by
an authorised
Holden Dealer

HOLDEN WISE
QUALITY SERVICE & PARTS

Free 1000 km Service Voucher.*

Presentation of this handbook and voucher to an authorised Holden Dealer entitles the owner to the following free service.

Service items for all models as applicable

FUEL SYSTEM

☐ Inspect CO/HC concentration

CHASSIS AND BODY

☐ Inspect clutch pedal
☐ Inspect brake pedal and parking brake
☐ Inspect brake fluid level
☐ Inspect clutch fluid level
☐ Inspect brake line pipes and hoses
☐ Tighten chassis and body bolts and nuts

* Oils and materials used will be charged to the owner at the normal rate.

Model .... VIN No. ....Engine No. ....

Owner's Name and Address ....

....

Name of selling Distributor or Dealer ....

Name of Servicing Dealer ....Service Date ....

Servicing Dealer's Signature ....

I hereby acknowledge receipt of the 1000 km free service

Owner's Signature ....

10000 km

Times quoted in Approximate Service Times List A (page 9-42) are for all service items (excepting wheel alignment and items listed under severe driving conditions) as required. Times quoted in List B (page 9-43) also allow for additional service items for severe driving conditions, but do not allow for additional service items as may be recommended by your Holden Dealer.

HOLDEN WISE
QUALITY SERVICE & PARTS

Date ....

km ....

Dealer Stamp

To be stamped by
an authorised
Holden Dealer

HOLDEN WISE
QUALITY SERVICE & PARTS

10000 km or 6 months Service Voucher.

Service items for all models as applicable

ENGINE COMPONENTS

☐ Inspect drive belts
☐ Replace engine oil (grade SG or higher)
☐ Replace engine oil filter

IGNITION SYSTEM

☐ Inspect battery

CHASSIS AND BODY

☐ Inspect thickness of disc brake pads
☐ Inspect brake fluid level
☐ Inspect clutch fluid level
☐ Inspect power steering fluid level
☐ Inspect drive shaft boot condition
☐ Inspect differential gear oil level (automatic transmission)
☐ Inspect automatic transmission fluid level
☐ Inspect manual transmission oil level
☐ Inspect tyres and inflation pressures
☐ Inspect all lights, horns, wipers and washers

ROAD TEST

☐ Road test vehicle
☐ Inspect wheel alignment (side slip) when abnormal condition is noted

If vehicle is subjected to severe or abnormal driving conditions, the following should also be serviced.

Service items for all models as applicable

ENGINE COMPONENTS

☐ Inspect exhaust pipes and mountings

FUEL SYSTEM

☐ Inspect air filter

CHASSIS AND BODY

☐ Inspect brake linings and drums (including parking brake linings and drums)
☐ Inspect brake line pipes and hoses
☐ Inspect steering wheel and linkage
☐ Inspect ball joints and dust covers
☐ Tighten chassis and body nuts and bolts

Note: Oils and materials required to complete the 10000 km service are chargeable to the Owner.

Additional services requested ....

....

Signature of/for Owner .... Date ....

10000 km or 6 months Service Voucher

[illegible]

10000 km

Times quoted in Approximate Service Times [illegible] [illegible]

20000 km

Times quoted in Approximate Service Times List A (page 9-42) are for all service items (excepting wheel alignment and items listed under severe driving conditions) as required. Times quoted in List B (page 9-43) also allow for additional service items for severe driving conditions, but do not allow for additional service items as may be recommended by your Holden Dealer.

HOLDEN WISE
QUALITY SERVICE & PARTS

Date ....

km ....

Dealer Stamp

To be stamped by
an authorised
Holden Dealer

HOLDEN WISE
QUALITY SERVICE & PARTS

20000 km or 12 months Service Voucher.

Service items for all models as applicable

ENGINE COMPONENTS

☐ Inspect drive belts
☐ Replace engine oil (grade SG or higher)
☐ Replace engine oil filter
☐ Inspect exhaust pipes and mountings

IGNITION SYSTEM

☐ Inspect battery

FUEL SYSTEM

☐ Inspect air filter
☐ Inspect CO/HC concentration

CHASSIS AND BODY

☐ Inspect brake pedal and parking brake
☐ Inspect brake pads and discs
☐ Inspect brake fluid level
☐ Inspect clutch fluid level
☐ Inspect brake line pipes and hoses
☐ Inspect power steering fluid level
☐ Inspect steering wheel and linkage
☐ Inspect drive shaft boot condition
☐ Inspect ball joints and dust covers
☐ Inspect differential gear oil level (automatic transmission)
☐ Inspect automatic transmission fluid level
☐ Inspect manual transmission oil level
☐ Inspect air conditioning operation, including sight glass
☐ Tighten chassis and body bolts and nuts
☐ Inspect tyres and inflation pressures
☐ Inspect all lights, horns, wipers and washers

ROAD TEST

☐ Road test vehicle
☐ Inspect wheel alignment (side slip) when abnormal condition is noted

20000 km Service continued overleaf.

Note: Oils and materials required to complete the 20000 km service are chargeable to the Owner.

Additional services requested ....

....

Signature of/for Owner .... Date ....

20000 km or 12 months Service Voucher.

If vehicle is subjected to severe or abnormal driving conditions, the following should also be serviced.

Service items for all models as applicable

Chassis and body

☐ Inspect brake linings and drums (including parking brake linings and drums)
☐ Inspect front and rear suspensions

30000 km

Times quoted in Approximate Service Times List A (page 9-42) are for all service items (excepting wheel alignment and items listed under severe driving conditions) as required. Times quoted in List B (page 9-43) also allow for additional service items for severe driving conditions, but do not allow for additional service items as may be recommended by your Holden Dealer.

HOLDEN WISE
QUALITY SERVICE & PARTS

Date ....

km ....

Dealer Stamp

To be stamped by
an authorised
Holden Dealer

HOLDEN WISE
QUALITY SERVICE & PARTS

30000 km or 18 months Service Voucher.

Service items for all models as applicable

ENGINE COMPONENTS

☐ Inspect drive belts
☐ Replace engine oil (grade SG or higher)
☐ Replace engine oil filter

IGNITION SYSTEM

☐ Inspect battery

CHASSIS AND BODY

☐ Inspect brake pads and discs
☐ Inspect brake fluid level
☐ Inspect clutch fluid level
☐ Inspect power steering fluid level
☐ Inspect drive shaft boot condition
☐ Inspect differential gear oil level (automatic transmission)
☐ Inspect automatic transmission fluid level
☐ Inspect manual transmission oil level
☐ Inspect tyres and inflation pressures
☐ Inspect all lights, horns, wipers and washers

ROAD TEST

☐ Road test vehicle
☐ Inspect wheel alignment (side slip) when abnormal condition is noted

If vehicle is subjected to severe or abnormal driving conditions, the following should also be serviced.

Service items for all models as applicable

ENGINE COMPONENTS

☐ Inspect exhaust pipes and mountings

FUEL SYSTEM

☐ Inspect air filter

CHASSIS AND BODY

☐ Inspect brake linings and drums (including parking brake linings and drums)
☐ Inspect brake line pipes and hoses
☐ Inspect steering wheel and linkage
☐ Inspect ball joints and dust covers
☐ Tighten chassis and body nuts and bolts

Note: Oils and materials required to complete the 30000 km service are chargeable to the Owner.

Additional services requested ....

....

Signature of/for Owner .... Date ....

40000 km

Times quoted in Approximate Service Times List A (page 9-42) are for all service items (excepting wheel alignment and items listed under severe driving conditions) as required. Times quoted in List B (page 9-43) also allow for additional service items for severe driving conditions, but do not allow for additional service items as may be recommended by your Holden Dealer.

HOLDEN WISE
QUALITY SERVICE & PARTS

Date ....

km ....

Dealer Stamp

To be stamped by
an authorised
Holden Dealer

HOLDEN WISE
QUALITY SERVICE & PARTS

40000 km or 24 months Service Voucher.

Service items for all models as applicable

ENGINE COMPONENTS

☐ Inspect drive belts
☐ Replace engine oil (grade SG or higher)
☐ Replace engine oil filter
☐ Inspect cooling and heater system hoses and connections
☐ Inspect exhaust pipes and mountings

IGNITION SYSTEM

☐ Inspect battery

FUEL SYSTEM

☐ Replace air filter
☐ Inspect CO/HC concentration
☐ Inspect fuel tank cap, fuel line, connections and fuel vapour control valve
☐ Inspect charcoal canister

CHASSIS AND BODY

☐ Inspect brake pedal and parking brake
☐ Inspect brake linings and drums (including parking brake linings and drums)
☐ Inspect brake pads and discs
☐ Replace brake fluid
☐ Inspect clutch fluid level
☐ Inspect brake line pipes and hoses
☐ Inspect power steering fluid level
☐ Inspect steering wheel and linkage
☐ Inspect drive shaft boot condition
☐ Inspect ball joints and dust covers
☐ Replace differential gear oil (automatic transmission)
☐ Inspect automatic transmission fluid level
☐ Inspect manual transmission oil level
☐ Inspect front and rear suspensions
☐ Inspect air conditioning operation, including sight glass
☐ Tighten chassis and body bolts and nuts
☐ Inspect tyres and inflation pressures
☐ Inspect all lights, horns, wipers and washers

40000 km Service continued overleaf

Note: Oils and materials required to complete the 40000 km service are chargeable to the Owner.

Additional services requested ....

....

Signature of/for Owner .... Date ....

40000 km or 24 months Service Voucher.

ROAD TEST

- ☐ Road test vehicle
- ☐ Inspect wheel alignment (side slip) when abnormal condition is noted

50000 km

Times quoted in Approximate Service Times List A (page 9-42) are for all service items (excepting wheel alignment and items listed under severe driving conditions) as required. Times quoted in List B (page 9-43) also allow for additional service items for severe driving conditions, but do not allow for additional service items as may be recommended by your Holden Dealer.

HOLDEN WISE
QUALITY SERVICE & PARTS

Date ....

km ....

Dealer Stamp

To be stamped by
an authorised
Holden Dealer

HOLDEN WISE
QUALITY SERVICE & PARTS

50000 km or 30 months Service Voucher.

Service items for all models as applicable

ENGINE COMPONENTS

☐ Inspect drive belts
☐ Replace engine oil (grade SG or higher)
☐ Replace engine oil filter

IGNITION SYSTEM

☐ Inspect battery

CHASSIS AND BODY

☐ Inspect brake pads and discs
☐ Inspect brake fluid level
☐ Inspect clutch fluid level
☐ Inspect power steering fluid level
☐ Inspect drive shaft boot condition
☐ Inspect differential gear oil level (automatic transmission)
☐ Inspect automatic transmission fluid level
☐ Inspect manual transmission oil level
☐ Inspect tyres and inflation pressures
☐ Inspect all lights, horns, wipers and washers

ROAD TEST

☐ Road test vehicle
☐ Inspect wheel alignment (sideslip) when abnormal condition is noted

If vehicle is subjected to severe or abnormal driving conditions, the following should also be serviced.

Service items for all models as applicable

ENGINE COMPONENTS

☐ Inspect exhaust pipes and mountings

FUEL SYSTEM

☐ Inspect air filter

CHASSIS AND BODY

☐ Inspect brake linings and drums (including parking brake linings and drums)
☐ Inspect brake line pipes and hoses
☐ Inspect steering wheel and linkage
☐ Inspect ball joints and dust covers
☐ Replace manual transmission oil
☐ Tighten chassis and body nuts and bolts

Note: Oils and materials required to complete the 50000 km service are chargeable to the Owner.

Additional services requested ....

....

Signature of/for Owner .... Date ....

60000 km

Times quoted in Approximate Service Times List A (page 9-42) are for all service items (excepting wheel alignment and items listed under severe driving conditions) as required. Times quoted in List B (page 9-43) also allow for additional service items for severe driving conditions, but do not allow for additional service items as may be recommended by your Holden Dealer.

HOLDEN WISE
QUALITY SERVICE & PARTS

Date ....

km ....

Dealer Stamp

To be stamped by
an authorised
Holden Dealer

HOLDEN WISE
QUALITY SERVICE & PARTS

60000 km or 36 months Service Voucher.

Service items for all models as applicable

ENGINE COMPONENTS

☐ Inspect drive belts
☐ Replace engine oil (grade SG or higher)
☐ Replace engine oil filter
☐ Replace engine coolant (See "Holden's lubricants and coolant " page 9-27)
☐ Inspect exhaust pipes and mountings

IGNITION SYSTEM

☐ Inspect battery

FUEL SYSTEM

☐ Inspect air filter
☐ Inspect CO/HC concentration

CHASSIS AND BODY

☐ Inspect brake pedal and parking brake
☐ Inspect brake pads and discs
☐ Inspect brake fluid level
☐ Inspect clutch fluid level
☐ Inspect brake line pipes and hoses
☐ Inspect power steering fluid level
☐ Inspect steering wheel and linkage
☐ Inspect drive shaft boot condition
☐ Inspect ball joints and dust covers
☐ Inspect differential gear oil level (automatic transmission)
☐ Replace automatic transmission fluid
☐ Inspect manual transmission oil level
☐ Inspect air conditioning operation, including sight glass
☐ Tighten chassis and body bolts and nuts
☐ Inspect tyres and inflation pressures
☐ Inspect all lights, horns, wipers and washers

ROAD TEST

☐ Road test vehicle
☐ Inspect wheel alignment (side slip) when abnormal condition is noted

60000 km Service continued overleaf

Note: Oils and materials required to complete the 60000 km service are chargeable to the Owner.

Additional services requested ....

....

Signature of/for Owner .... Date ....

HOLDEN WISE
QUALITY SERVICE & PARTS

60000 km or 36 months Service Voucher.

If vehicle is subjected to severe or abnormal driving conditions, the following should also be serviced.

Service items for all models as applicable

CHASSIS AND BODY

☐ Inspect brake linings and drums (including parking brake linings and drums)
☐ Inspect front and rear suspensions

70000 km

Times quoted in Approximate Service Times List A (page 9-42) are for all service items (excepting wheel alignment and items listed under severe driving conditions) as required. Times quoted in List B (page 9-43) also allow for additional service items for severe driving conditions, but do not allow for additional service items as may be recommended by your Holden Dealer.

HOLDEN WISE
QUALITY SERVICE & PARTS

Date ....

km ....

Dealer Stamp

To be stamped by
an authorised
Holden Dealer

HOLDEN WISE
QUALITY SERVICE & PARTS

70000 km or 42 months Service Voucher.

Service items for all models as applicable

ENGINE COMPONENTS

☐ Inspect drive belts
☐ Replace engine oil (grade SG or higher)
☐ Replace engine oil filter

IGNITION SYSTEM

☐ Inspect battery

CHASSIS AND BODY

☐ Inspect brake pads and discs
☐ Inspect brake fluid level
☐ Inspect clutch fluid level
☐ Inspect power steering fluid level
☐ Inspect drive shaft boot condition
☐ Inspect differential gear oil level (automatic transmission)
☐ Inspect automatic transmission fluid level
☐ Inspect manual transmission oil level
☐ Inspect tyres and inflation pressures
☐ Inspect all lights, horns, wipers and washers

ROAD TEST

☐ Road test vehicle
☐ Inspect wheel alignment (side slip) when abnormal condition is noted

If vehicle is subjected to severe or abnormal driving conditions, the following should also be serviced.

Service items for all models as applicable

ENGINE COMPONENTS

☐ Inspect exhaust pipes and mountings

FUEL SYSTEM

☐ Inspect air filter

CHASSIS AND BODY

☐ Inspect brake linings and drums (including parking brake linings and drums)
☐ Inspect brake line pipes and hoses
☐ Inspect steering wheel and linkage
☐ Inspect ball joints and dust covers
☐ Tighten chassis and body nuts and bolts

Note: Oils and materials required to complete the 70000 km service are chargeable to the Owner.

Additional services requested ....

....

Signature of/for Owner .... Date ....

80000 km

Times quoted in Approximate Service Times List A (page 9-42) are for all service items (excepting wheel alignment and items listed under severe driving conditions) as required. Times quoted in List B (page 9-43) also allow for additional service items for severe driving conditions, but do not allow for additional service items as may be recommended by your Holden Dealer.

HOLDEN WISE
QUALITY SERVICE & PARTS

Date ....

km ....

Dealer Stamp

To be stamped by
an authorised
Holden Dealer

HOLDEN WISE
QUALITY SERVICE & PARTS

80000 km or 48 months Service Voucher.

Service items for all models as applicable

ENGINE COMPONENTS

- ☐ Adjust valve clearance
- ☐ Inspect drive belts
- ☐ Replace engine oil (grade SG or higher)
- ☐ Replace engine oil filter
- ☐ Inspect cooling and heater system hoses and connections
- ☐ Inspect exhaust pipes and mountings

IGNITION SYSTEM

- ☐ Inspect battery

FUEL SYSTEM

- ☐ Replace air filter
- ☐ Replace fuel filter
- ☐ Inspect CO/HC concentration
- ☐ Inspect fuel tank cap, fuel line, connections and fuel vapour control valve
- ☐ Inspect charcoal canister

CHASSIS AND BODY

- ☐ Inspect brake pedal and parking brake
- ☐ Inspect brake pads and discs
- ☐ Inspect brake linings and drums (including parking brake linings and drums)
- ☐ Replace brake fluid
- ☐ Inspect clutch fluid level
- ☐ Inspect brake line pipes and hoses
- ☐ Inspect power steering fluid level
- ☐ Inspect steering wheel and linkage
- ☐ Inspect drive shaft boot condition
- ☐ Inspect ball joints and dust covers
- ☐ Replace differential gear oil (automatic transmission)
- ☐ Inspect automatic transmission fluid level
- ☐ Inspect manual transmission oil level
- ☐ Inspect front and rear suspensions
- ☐ Inspect air conditioning operation, including sight glass
- ☐ Tighten chassis and body bolts and nuts
- ☐ Inspect tyres and inflation pressures
- ☐ Inspect all lights, horns, wipers and washers

80000 km Service continued overleaf

Note: Oils and materials required to complete the 80000 km service are chargeable to the Owner.

Additional services requested ....

....

Signature of/for Owner .... Date ....

HOLDEN WISE
QUALITY SERVICE & PARTS

80000 km or 48 months Service Voucher.

ROAD TEST

☐ Road test vehicle
☐ Inspect wheel alignment (side slip) when abnormal condition is noted

90000 km

Times quoted in Approximate Service Times List A (page 9-42) are for all service items (excepting wheel alignment and items listed under severe driving conditions) as required. Times quoted in List B (page 9-43) also allow for additional service items for severe driving conditions, but do not allow for additional service items as may be recommended by your Holden Dealer.

HOLDEN WISE
QUALITY SERVICE & PARTS

Date ....

km ....

Dealer Stamp

To be stamped by
an authorised
Holden Dealer

HOLDEN WISE
QUALITY SERVICE & PARTS

90000 km or 54 months Service Voucher.

Service items for all models as applicable

ENGINE COMPONENTS

☐ Inspect drive belts
☐ Replace engine oil (grade SG or higher)
☐ Replace engine oil filter

IGNITION SYSTEM

☐ Inspect battery

CHASSIS AND BODY

☐ Inspect brake pads and discs
☐ Inspect brake fluid level
☐ Inspect clutch fluid level
☐ Inspect power steering fluid level
☐ Inspect drive shaft boot condition
☐ Inspect differential gear oil level (automatic transmission)
☐ Inspect automatic transmission fluid level
☐ Inspect manual transmission oil level
☐ Inspect tyres and inflation pressures
☐ Inspect all lights, horns, wipers and washers

ROAD TEST

☐ Road test vehicle
☐ Inspect wheel alignment (sideslip) when abnormal condition is noted

If vehicle is subjected to severe or abnormal driving conditions, the following should also be serviced.

Service items for all models as applicable

ENGINE COMPONENTS

☐ Inspect exhaust pipes and mountings

FUEL SYSTEM

☐ Inspect air filter

CHASSIS AND BODY

☐ Inspect brake linings and drums (including parking brake linings and drums)
☐ Inspect brake line pipes and hoses
☐ Inspect steering wheel and linkage
☐ Inspect ball joints and dust covers
☐ Tighten chassis and body nuts and bolts

Note: Oils and materials required to complete the 90000 km service are chargeable to the Owner.

Additional services requested ....

....

Signature of/for Owner .... Date ....

100000 km

Times quoted in Approximate Service Times List A (page 9-42) are for all service items (excepting wheel alignment and items listed under severe driving conditions) as required. Times quoted in List B (page 9-43) also allow for additional service items for severe driving conditions, but do not allow for additional service items as may be recommended by your Holden Dealer.

HOLDENWISE
QUALITY SERVICE & PARTS

Date ....

km ....

Dealer Stamp

To be stamped by
an authorised
Holden Dealer

HOLDENWISE
QUALITY SERVICE & PARTS

100000 km or 60 months Service Voucher.

Service items for all models as applicable

ENGINE COMPONENTS

☐ Inspect drive belts
☐ Replace engine oil (grade SG or higher)
☐ Replace engine oil filter
☐ Inspect cooling and heater system hoses and connections
☐ Replace engine coolant (See "Holden's lubricants and coolant " page 9-27)
☐ Inspect exhaust pipes and mountings

IGNITION SYSTEM

☐ Inspect battery
☐ Replace spark plugs

FUEL SYSTEM

☐ Inspect air filter
☐ Inspect CO/HC concentration
☐ Inspect fuel tank cap, fuel line, connections and fuel vapour control valve

CHASSIS AND BODY

☐ Inspect brake pedal and parking brake
☐ Inspect brake pads and discs
☐ Inspect brake fluid level
☐ Inspect clutch fluid level
☐ Inspect brake line pipes and hoses
☐ Inspect power steering fluid level
☐ Inspect steering wheel and linkage
☐ Inspect drive shaft boot condition
☐ Inspect ball joints and dust covers
☐ Inspect differential gear oil level (automatic transmission)
☐ Inspect automatic transmission fluid level
☐ Replace manual transmission oil
☐ Inspect air conditioning operation, including sight glass
☐ Tighten chassis and body bolts and nuts
☐ Inspect tyres and inflation pressures
☐ Inspect all lights, horns, wipers and washers

100000 km Service continued overleaf.

Note: Oils and materials required to complete the 100000 km service are chargeable to the Owner.

Additional services requested ....

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Signature of/for Owner .... Date ....

HOLDEN WISE
QUALITY SERVICE & PARTS

100000 km or 60 months Service Voucher.

ROAD TEST

☐ Road test vehicle
☐ Inspect wheel alignment (side slip) when abnormal condition is noted

If vehicle is subjected to severe or abnormal driving conditions, the following should also be serviced.

Service items for all models as applicable

ENGINE COMPONENTS

☐ Replace timing belt

CHASSIS AND BODY

☐ Inspect brake linings and drums (including parking brake linings and drums)
☐ Inspect front and rear suspensions

110000 km

Times quoted in Approximate Service Times List A (page 9-42) are for all service items (excepting wheel alignment and items listed under severe driving conditions) as required. Times quoted in List B (page 9-43) also allow for additional service items for severe driving conditions, but do not allow for additional service items as may be recommended by your Holden Dealer.

HOLDEN WISE
QUALITY SERVICE & PARTS

Date ....

km ....

Dealer Stamp

To be stamped by
an authorised
Holden Dealer

HOLDEN WISE
QUALITY SERVICE & PARTS

110000 km or 66 months Service Voucher.

Service items for all models as applicable

ENGINE COMPONENTS

☐ Inspect drive belts
☐ Replace engine oil (grade SG or higher)
☐ Replace engine oil filter

IGNITION SYSTEM

☐ Inspect battery

CHASSIS AND BODY

☐ Inspect brake pads and discs
☐ Inspect brake fluid level
☐ Inspect clutch fluid level
☐ Inspect power steering fluid level
☐ Inspect drive shaft boot condition
☐ Inspect differential gear oil level (automatic transmission)
☐ Inspect automatic transmission fluid level
☐ Inspect manual transmission oil level
☐ Inspect tyres and inflation pressures
☐ Inspect all lights, horns, wipers and washers

ROAD TEST

☐ Road test vehicle
☐ Inspect wheel alignment (side slip) when abnormal condition is noted

If vehicle is subjected to severe or abnormal driving conditions, the following should also be serviced.

Service items for all models as applicable

ENGINE COMPONENTS

☐ Inspect exhaust pipes and mountings

FUEL SYSTEM

☐ Inspect air filter

CHASSIS AND BODY

☐ Inspect brake linings and drums (including parking brake linings and drums)
☐ Inspect brake line pipes and hoses
☐ Inspect steering wheel and linkage
☐ Inspect ball joints and dust covers
☐ Tighten chassis and body nuts and bolts

Note: Oils and materials required to complete the 110000 km service are chargeable to the Owner.

Additional services requested ....

....

Signature of/for Owner .... Date ....

110000 km or 60 months Service Voucher.

[illegible]

110000 km

Times quoted in Approximate Service Times List A (page 3-43) and for all service items (excepting wheel alignment and items listed [illegible]

120000 km

Times quoted in Approximate Service Times List A (page 9-42) are for all service items (excepting wheel alignment and items listed under severe driving conditions) as required. Times quoted in List B (page 9-43) also allow for additional service items for severe driving conditions, but do not allow for additional service items as may be recommended by your Holden Dealer.

HOLDEN WISE
QUALITY SERVICE & PARTS

Date ....

km ....

Dealer Stamp

To be stamped by
an authorised
Holden Dealer

HOLDEN WISE
QUALITY SERVICE & PARTS

120000 km or 72 months Service Voucher.

Service items for all models as applicable

ENGINE COMPONENTS

☐ Inspect drive belts
☐ Replace engine oil (grade SG or higher)
☐ Replace engine oil filter
☐ Inspect cooling and heater system hoses and connections
☐ Inspect exhaust pipes and mountings

IGNITION SYSTEM

☐ Inspect battery

FUEL SYSTEM

☐ Replace air filter
☐ Inspect CO/HC concentration
☐ Inspect fuel tank cap, fuel line, connections and fuel vapour control valve
☐ Inspect charcoal canister

CHASSIS AND BODY

☐ Inspect brake pedal and parking brake
☐ Inspect brake linings and drums (including parking brake linings and drums)
☐ Inspect brake pads and discs
☐ Replace brake fluid
☐ Inspect clutch fluid level
☐ Inspect brake line pipes and hoses
☐ Inspect power steering fluid level
☐ Inspect steering wheel and linkage
☐ Inspect drive shaft boot condition
☐ Inspect ball joints and dust covers
☐ Replace differential gear oil (automatic transmission)
☐ Replace automatic transmission fluid
☐ Inspect manual transmission oil level
☐ Inspect front and rear suspensions
☐ Inspect air conditioning operation, including sight glass
☐ Tighten chassis and body bolts and nuts
☐ Inspect tyres and inflation pressures
☐ Inspect all lights, horns, wipers and washers

120000 km Service continued overleaf.

Note: Oils and materials required to complete the 120000 km service are chargeable to the Owner.

Additional services requested ....

....

Signature of/for Owner .... Date ....

HOLDEN WISE
QUALITY SERVICE & PARTS

120000 km or 72 months Service Voucher.

ROAD TEST

☐ Road test vehicle
☐ Inspect wheel alignment (side slip) when abnormal condition is noted

130000 km

Times quoted in Approximate Service Times List A (page 9-42) are for all service items (excepting wheel alignment and items listed under severe driving conditions) as required. Times quoted in List B (page 9-43) also allow for additional service items for severe driving conditions, but do not allow for additional service items as may be recommended by your Holden Dealer.

HOLDEN WISE
QUALITY SERVICE & PARTS

Date ....

km ....

Dealer Stamp

To be stamped by
an authorised
Holden Dealer

HOLDEN WISE
QUALITY SERVICE & PARTS

130000 km or 78 months Service Voucher.

Service items for all models as applicable

ENGINE COMPONENTS

- ☐ Inspect drive belts
- ☐ Replace engine oil (grade SG or higher)
- ☐ Replace engine oil filter

IGNITION SYSTEM

- ☐ Inspect battery

CHASSIS AND BODY

- ☐ Inspect brake pads and discs
- ☐ Inspect brake fluid level
- ☐ Inspect clutch fluid level
- ☐ Inspect power steering fluid level
- ☐ Inspect drive shaft boot condition
- ☐ Inspect differential gear oil level (automatic transmission)
- ☐ Inspect automatic transmission fluid level
- ☐ Inspect manual transmission oil level
- ☐ Inspect tyres and inflation pressures
- ☐ Inspect all lights, horns, wipers and washers

ROAD TEST

- ☐ Road test vehicle
- ☐ Inspect wheel alignment (side slip) when abnormal condition is noted

If vehicle is subjected to severe or abnormal driving conditions, the following should also be serviced.

Service items for all models as applicable

ENGINE COMPONENTS

- ☐ Inspect exhaust pipes and mountings

FUEL SYSTEM

- ☐ Inspect air filter

CHASSIS AND BODY

- ☐ Inspect brake linings and drums (including parking brake linings and drums)
- ☐ Inspect brake line pipes and hoses
- ☐ Inspect steering wheel and linkage
- ☐ Inspect ball joints and dust covers
- ☐ Tighten chassis and body nuts and bolts

Note: Oils and materials required to complete the 130000 km service are chargeable to the Owner.

Additional services requested ....

....

Signature of/for Owner .... Date ....

140000 km

Times quoted in Approximate Service Times List A (page 9-42) are for all service items (excepting wheel alignment and items listed under severe driving conditions) as required. Times quoted in List B (page 9-43) also allow for additional service items for severe driving conditions, but do not allow for additional service items as may be recommended by your Holden Dealer.

HOLDEN WISE
QUALITY SERVICE & PARTS

Date ....

km ....

Dealer Stamp

To be stamped by
an authorised
Holden Dealer

HOLDEN WISE
QUALITY SERVICE & PARTS

140000 km or 84 months Service Voucher.

Service items for all models as applicable

ENGINE COMPONENTS

☐ Inspect drive belts
☐ Replace engine oil (grade SG or higher)
☐ Replace engine oil filter
☐ Inspect cooling and heater system hoses and connections
☐ Replace engine coolant (See "Holden's lubricants and coolant" page 9-27)
☐ Inspect exhaust pipes and mountings

IGNITION SYSTEM

☐ Inspect battery

FUEL SYSTEM

☐ Inspect air filter
☐ Inspect CO/HC concentration
☐ Inspect fuel tank cap, fuel line, connections and fuel vapour control valve

CHASSIS AND BODY

☐ Inspect brake pedal and parking brake
☐ Inspect brake pads and discs
☐ Inspect brake fluid level
☐ Inspect clutch fluid level
☐ Inspect brake line pipes and hoses
☐ Inspect power steering fluid level
☐ Inspect steering wheel and linkage
☐ Inspect drive shaft boot condition
☐ Inspect ball joints and dust covers
☐ Inspect differential gear oil level (automatic transmission)
☐ Inspect automatic transmission fluid level
☐ Inspect manual transmission oil level
☐ Inspect air conditioning operation, including sight glass
☐ Tighten chassis and body bolts and nuts
☐ Inspect tyres and inflation pressures
☐ Inspect all lights, horns, wipers and washers

140000 km Service continued overleaf.

Note: Oils and materials required to complete the 140000 km service are chargeable to the Owner.

Additional services requested ....

....

Signature of/for Owner .... Date ....

140000 km or 84 months Service Voucher.

ROAD TEST

☐ Road test vehicle
☐ Inspect wheel alignment (side slip) when abnormal condition is noted

If vehicle is subjected to severe or abnormal driving conditions, the following should also be serviced.

Service items for all models as applicable

CHASSIS AND BODY

☐ Inspect brake linings and drums (including parking brake linings and drums)
☐ Inspect front and rear suspensions

150000 km

Times quoted in Approximate Service Times List A (page 9-42) are for all service items (excepting wheel alignment and items listed under severe driving conditions) as required. Times quoted in List B (page 9-43) also allow for additional service items for severe driving conditions, but do not allow for additional service items as may be recommended by your Holden Dealer.

HOLDEN WISE
QUALITY SERVICE & PARTS

Date ....

km ....

Dealer Stamp

To be stamped by
an authorised
Holden Dealer

HOLDEN WISE
QUALITY SERVICE & PARTS

150000 km or 90 months Service Voucher.

Service items for all models as applicable

ENGINE COMPONENTS

☐ Inspect drive belts
☐ Replace engine oil (grade SG or higher)
☐ Replace engine oil filter

IGNITION SYSTEM

☐ Inspect battery

CHASSIS AND BODY

☐ Inspect brake pads and discs
☐ Inspect brake fluid level
☐ Inspect clutch fluid level
☐ Inspect power steering fluid level
☐ Inspect drive shaft boot condition
☐ Inspect differential gear oil level (automatic transmission)
☐ Inspect automatic transmission fluid level
☐ Inspect manual transmission oil level
☐ Inspect tyres and inflation pressures
☐ Inspect all lights, horns, wipers and washers

ROAD TEST

☐ Road test vehicle
☐ Inspect wheel alignment (side slip) when abnormal condition is noted

If vehicle is subjected to severe or abnormal driving conditions, the following should also be serviced.

Service items for all models as applicable

ENGINE COMPONENTS

☐ Inspect exhaust pipes and mountings

FUEL SYSTEM

☐ Inspect air filter

CHASSIS AND BODY

☐ Inspect brake linings and drums (including parking brake linings and drums)
☐ Inspect brake line pipes and hoses
☐ Inspect steering wheel and linkage
☐ Inspect ball joints and dust covers
☐ Replace manual transmission oil
☐ Tighten chassis and body nuts and bolts

Note: Oils and materials required to complete the 150000 km service are chargeable to the Owner.

Additional services requested ....

....

Signature of/for Owner .... Date ....

160000 km

Times quoted in Approximate Service Times List A (page 9-42) are for all service items (excepting wheel alignment and items listed under severe driving conditions) as required. Times quoted in List B (page 9-43) also allow for additional service items for severe driving conditions, but do not allow for additional service items as may be recommended by your Holden Dealer.

HOLDEN WISE
QUALITY SERVICE & PARTS

Date ....

km ....

Dealer Stamp

To be stamped by
an authorised
Holden Dealer

HOLDEN WISE
QUALITY SERVICE & PARTS

160000 km or 96 months Service Voucher.

Service items for all models as applicable

ENGINE COMPONENTS

☐ Adjust valve clearance
☐ Inspect drive belts
☐ Replace engine oil (grade SG or higher)
☐ Replace engine oil filter
☐ Inspect cooling and heater system hoses and connections
☐ Inspect exhaust pipes and mountings

IGNITION SYSTEM

☐ Inspect battery

FUEL SYSTEM

☐ Replace air filter
☐ Replace fuel filter
☐ Inspect CO/HC concentration
☐ Inspect fuel tank cap, fuel line, connections and fuel vapour control valve
☐ Inspect charcoal canister

CHASSIS AND BODY

☐ Inspect brake pedal and parking brake
☐ Inspect brake pads and discs
☐ Inspect brake linings and drums (including parking brake linings and drums)
☐ Replace brake fluid
☐ Inspect clutch fluid level
☐ Inspect brake line pipes and hoses
☐ Inspect power steering fluid level
☐ Inspect steering wheel and linkage
☐ Inspect drive shaft boot condition
☐ Inspect ball joints and dust covers
☐ Replace differential gear oil (automatic transmission)
☐ Inspect automatic transmission fluid level
☐ Inspect manual transmission oil level
☐ Inspect front and rear suspensions
☐ Inspect air conditioning operation, including sight glass
☐ Tighten chassis and body bolts and nuts
☐ Inspect tyres and inflation pressures
☐ Inspect all lights, horns, wipers and washers

160000 km Service continued overleaf.

Note: Oils and materials required to complete the 160000 km service are chargeable to the Owner.

Additional services requested ....

....

Signature of/for Owner .... Date ....

HOLDEN WISE
QUALITY SERVICE & PARTS

160000 km or 96 months Service Voucher.

ROAD TEST

☐ Road test vehicle
☐ Inspect wheel alignment (side slip) when abnormal condition is noted

170000 km

Times quoted in Approximate Service Times List A (page 9-42) are for all service items (excepting wheel alignment and items listed under severe driving conditions) as required. Times quoted in List B (page 9-43) also allow for additional service items for severe driving conditions, but do not allow for additional service items as may be recommended by your Holden Dealer.

HOLDENWISE
QUALITY SERVICE & PARTS

Date ....

km ....

Dealer Stamp

To be stamped by
an authorised
Holden Dealer

HOLDENWISE
QUALITY SERVICE & PARTS

170000 km or 102 months Service Voucher.

Service items for all models as applicable

ENGINE COMPONENTS

☐ Inspect drive belts
☐ Replace engine oil (grade SG or higher)
☐ Replace engine oil filter

IGNITION SYSTEM

☐ Inspect battery

CHASSIS AND BODY

☐ Inspect brake pads and discs
☐ Inspect brake fluid level
☐ Inspect clutch fluid level
☐ Inspect power steering fluid level
☐ Inspect drive shaft boot condition
☐ Inspect differential gear oil level (automatic transmission)
☐ Inspect automatic transmission fluid level
☐ Inspect manual transmission oil level
☐ Inspect tyres and inflation pressures
☐ Inspect all lights, horns, wipers and washers

ROAD TEST

☐ Road test vehicle
☐ Inspect wheel alignment (side slip) when abnormal condition is noted

If vehicle is subjected to severe or abnormal driving conditions, the following should also be serviced.

Service items for all models as applicable

ENGINE COMPONENTS

☐ Inspect exhaust pipes and mountings

FUEL SYSTEM

☐ Inspect air filter

CHASSIS AND BODY

☐ Inspect brake linings and drums (including parking brake linings and drums)
☐ Inspect brake line pipes and hoses
☐ Inspect steering wheel and linkage
☐ Inspect ball joints and dust covers
☐ Tighten chassis and body nuts and bolts

Note: Oils and materials required to complete the 170000 km service are chargeable to the Owner.

Additional services requested ....

....

Signature of/for Owner .... Date ....

180000 km

Times quoted in Approximate Service Times List A (page 9-42) are for all service items (excepting wheel alignment and items listed under severe driving conditions) as required. Times quoted in List B (page 9-43) also allow for additional service items for severe driving conditions, but do not allow for additional service items as may be recommended by your Holden Dealer.

HOLDEN WISE
QUALITY SERVICE & PARTS

Date ....

km ....

Dealer Stamp

To be stamped by
an authorised
Holden Dealer

HOLDEN WISE
QUALITY SERVICE & PARTS

180000 km or 108 months Service Voucher.

Service items for all models as applicable

ENGINE COMPONENTS

☐ Inspect drive belts
☐ Replace engine oil (grade SG or higher)
☐ Replace engine oil filter
☐ Inspect cooling and heater system hoses and connections
☐ Replace engine coolant (See “Holden's lubricants and coolant ” page 9-27)
☐ Inspect exhaust pipes and mountings

IGNITION SYSTEM

☐ Inspect battery

FUEL SYSTEM

☐ Inspect air filter
☐ Inspect CO/HC concentration
☐ Inspect fuel tank cap, fuel line, connections and fuel vapour control valve

CHASSIS AND BODY

☐ Inspect brake pedal and parking brake
☐ Inspect brake pads and discs
☐ Inspect brake fluid level
☐ Inspect clutch fluid level
☐ Inspect brake line pipes and hoses
☐ Inspect power steering fluid level
☐ Inspect steering wheel and linkage
☐ Inspect drive shaft boot condition
☐ Inspect ball joints and dust covers
☐ Inspect differential gear oil level (automatic transmission)
☐ Replace automatic transmission fluid
☐ Inspect manual transmission oil level
☐ Inspect air conditioning operation, including sight glass
☐ Tighten chassis and body bolts and nuts
☐ Inspect tyres and inflation pressures
☐ Inspect all lights, horns, wipers and washers

180000 km Service continued overleaf.

Note: Oils and materials required to complete the 180000 km service are chargeable to the Owner.

Additional services requested ....

....

Signature of/for Owner .... Date ....

180000 km or 108 months Service Voucher.

ROAD TEST

- ☐ Road test vehicle
- ☐ Inspect wheel alignment (side slip) when abnormal condition is noted

If vehicle is subjected to severe or abnormal driving conditions, the following should also be serviced.

Service items for all models as applicable

CHASSIS AND BODY

- ☐ Inspect brake linings and drums (including parking brake linings and drums)
- ☐ Inspect front and rear suspensions

190000 km

Times quoted in Approximate Service Times List A (page 9-42) are for all service items (excepting wheel alignment and items listed under severe driving conditions) as required. Times quoted in List B (page 9-43) also allow for additional service items for severe driving conditions, but do not allow for additional service items as may be recommended by your Holden Dealer.

HOLDEN WISE
QUALITY SERVICE & PARTS

Date ....

km ....

Dealer Stamp

To be stamped by
an authorised
Holden Dealer

HOLDEN WISE
QUALITY SERVICE & PARTS

190000 km or 114 months Service Voucher.

Service items for all models as applicable

ENGINE COMPONENTS

- ☐ Inspect drive belts
- ☐ Replace engine oil (grade SG or higher)
- ☐ Replace engine oil filter

IGNITION SYSTEM

- ☐ Inspect battery

CHASSIS AND BODY

- ☐ Inspect brake pads and discs
- ☐ Inspect brake fluid level
- ☐ Inspect clutch fluid level
- ☐ Inspect power steering fluid level
- ☐ Inspect drive shaft boot condition
- ☐ Inspect differential gear oil level (automatic transmission)
- ☐ Inspect automatic transmission fluid level
- ☐ Inspect manual transmission oil level
- ☐ Inspect tyres and inflation pressures
- ☐ Inspect all lights, horns, wipers and washers

ROAD TEST

- ☐ Road test vehicle
- ☐ Inspect wheel alignment (sideslip) when abnormal condition is noted

If vehicle is subjected to severe or abnormal driving conditions, the following should also be serviced.

Service items for all models as applicable

ENGINE COMPONENTS

- ☐ Inspect exhaust pipes and mountings

FUEL SYSTEM

- ☐ Inspect air filter

CHASSIS AND BODY

- ☐ Inspect brake linings and drums (including parking brake linings and drums)
- ☐ Inspect brake line pipes and hoses
- ☐ Inspect steering wheel and linkage
- ☐ Inspect ball joints and dust covers
- ☐ Tighten chassis and body nuts and bolts

Note: Oils and materials required to complete the 190000 km service are chargeable to the Owner.

Additional services requested ....

....

Signature of/for Owner .... Date ....

200000 km

Times quoted in Approximate Service Times List A (page 9-42) are for all service items (excepting wheel alignment and items listed under severe driving conditions) as required. Times quoted in List B (page 9-43) also allow for additional service items for severe driving conditions, but do not allow for additional service items as may be recommended by your Holden Dealer.

HOLDEN WISE
QUALITY SERVICE & PARTS

Date ....

km ....

Dealer Stamp

To be stamped by
an authorised
Holden Dealer

HOLDEN WISE
QUALITY SERVICE & PARTS

200000 km or 120 months Service Voucher.

Service items for all models as applicable

ENGINE COMPONENTS

- ☐ Inspect drive belts
- ☐ Replace engine oil (grade SG or higher)
- ☐ Replace engine oil filter
- ☐ Inspect cooling and heater system hoses and connections
- ☐ Inspect exhaust pipes and mountings

IGNITION SYSTEM

- ☐ Inspect battery
- ☐ Replace spark plugs

FUEL SYSTEM

- ☐ Replace air filter
- ☐ Inspect CO/HC concentration
- ☐ Inspect fuel tank cap, fuel line, connections and fuel vapour control valve
- ☐ Inspect charcoal canister

CHASSIS AND BODY

- ☐ Inspect brake pedal and parking brake
- ☐ Inspect brake linings and drums (including parking brake linings and drums)
- ☐ Inspect brake pads and discs
- ☐ Replace brake fluid
- ☐ Inspect clutch fluid level
- ☐ Inspect brake line pipes and hoses
- ☐ Inspect power steering fluid level
- ☐ Inspect steering wheel and linkage
- ☐ Inspect drive shaft boot condition
- ☐ Inspect ball joints and dust covers
- ☐ Replace differential gear oil (automatic transmission)
- ☐ Inspect automatic transmission fluid level
- ☐ Replace manual transmission oil
- ☐ Inspect front and rear suspensions
- ☐ Inspect air conditioning operation, including sight glass
- ☐ Tighten chassis and body bolts and nuts
- ☐ Inspect tyres and inflation pressures
- ☐ Inspect all lights, horns, wipers and washers

200000 km Service continued overleaf.

Note: Oils and materials required to complete the 200000 km service are chargeable to the Owner.

Additional services requested ....

....

Signature of/for Owner .... Date ....

HOLDEN WISE
QUALITY SERVICE & PARTS

200000 km or 120 months Service Voucher.

ROAD TEST

☐ Road test vehicle
☐ Inspect wheel alignment when abnormal condition is noted

If vehicle is subjected to severe or abnormal driving conditions, the following should also be serviced.

Service items for all models as applicable

ENGINE COMPONENTS

☐ Replace timing belt

Notice of Name / Address Ownership Change

PLEASE TICK APPROPRIATE SQUARE

☐ NAME/ ADDRESS CHANGE

☐ SUBSEQUENT OWNER

Owner's. Name
Mr. ....
Mrs. ....
Miss ....

Address ....
Town ....
State ....
Registration No. ....
Vehicle Identification
Number (VIN) ....

To ensure continued interest in your Apollo, Holden's requests that owners who change their name or address (or subsequent owners who purchase the vehicle) fill in and mail one of the attached notices. Please forward to the address shown on the reverse side of the notice.

9 - 93

Notice of Name / Address Ownership Change

PLEASE TICK APPROPRIATE SQUARE

☐ NAME/ ADDRESS CHANGE

☐ SUBSEQUENT OWNER

Owner's. Name
Mr. ....
Mrs. ....
Miss ....

Address ....
Town ....
State ....
Registration No. ....
Vehicle Identification
Number (VIN) ....

To ensure continued interest in your Apollo, Holden's requests that owners who change their name or address (or subsequent owners who purchase the vehicle) fill in and mail one of the attached notices. Please forward to the address shown on the reverse side of the notice.

9 - 93

Place in an envelope and mail to:

The Manager - Warranty Administration
Service Department
General Motors - Holden's Automotive Limited
Box 548D, G.P.O.
Melbourne,
Victoria, 3001

Place in an envelope and mail to:

The Manager - Warranty Administration
Service Department
General Motors - Holden's Automotive Limited
Box 548D, G.P.O.
Melbourne,
Victoria, 3001

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